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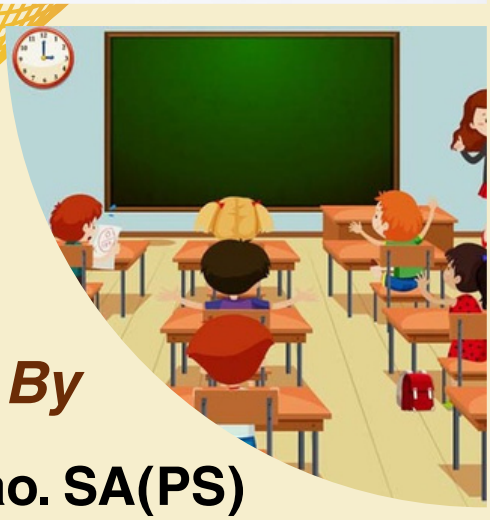
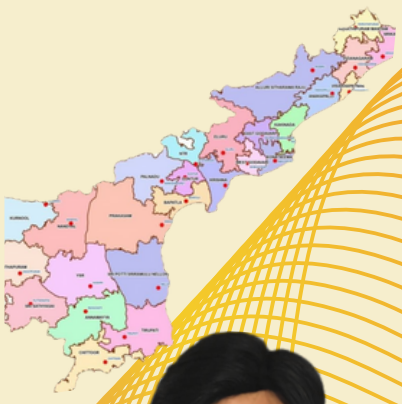
National Means Cum Merit Scholarship

Mental Ability Test

MAT
90 MARKS





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CHAPTER

1 Number Series

Number Series

In this type of series, the set of given numbers in a series are related to one another in a particular pattern or manner. The relationship between the numbers may be (i) consecutive odd/ even numbers; (ii) consecutive prime numbers; (iii) squares /cubes of some numbers with/ without variation of addition or subtraction of some number; (iv) sum/ product/ difference of preceding numbers; (v) addition/ subtraction / multiplication/ division by some number; and (vi) many more combinations of the relationships given above.

Examples

1. Which number will complete the given series?

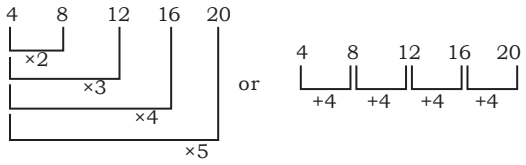
   4, 8, 12, 16, ?

   (A) 18 (B) 20 (C) 22 (D) 24

Solution

(B) The series is made of numbers which are multiples of 4. Other explanation can be that the difference between the two consecutive numbers is 4.

$4 \times 2 = 8$



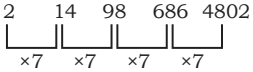
2. Complete the given series

   2, 14, 98, 686, ?

   (A) 1976 (B) 2548 (C) 980 (D) None of these

Solutions

(D) The numbers are multiplied by 7 to obtain the next numbers.



ASSIGNMENT-1

Direction (1 to 20) In each of the following questions a number of possible answers are given, out of which one answer is correct. Find out the correct answer

1. Insert the missing number : 5, 8, 12, 17, 23, ____, 38

   (A) 29 (B) 30 (C) 32 (D) 25

2. Insert the missing number : 4, 9, 20, 43, 90 ___
(A) 185 (B) 172 (C) 179 (D) 165

3. Insert the missing number :1, 1, 4, 8, 9, 27, 16, ___
(A) 25 (B) 36 (C) 125 (D) 64

4. Fill in the missing number: 2, 6, 3, 4, 20, 5, 6, ?, 7
(A) 25 (B) 42 (C) 24 (D) 18

5. Fill in the missing number : 1, 5, 11, 19, 29, ?
(A) 47 (B) 41 (C) 39 (D) 55

6. Fill in the missing number : 3, 6, 21, 28, 55, 66, ?, 120
(A) 106 (B) 108 (C) 105 (D) 102

7. Fill in the missing number : 5, 13, 25, 41, ?, 85, 113, 145
(A) 42 (B) 64 (C) 63 (D) 61

8. Fill in the missing number : 4, 5, 9, 18, 34, ?
(A) 42 (B) 59 (C) 38 (D) None of these

9. Fill in the missing number : 1799, 899, 449, ?
(A) 333 (B) 114 (C) 111 (D) 224

10. Fill in the missing number : 23, 35, 57, 711, ?
(A) 1117 (B) 1317 (C) 1113 (D) 713

11. Fill in the missing number : 5, 11, 19, 29, ?
(A) 31 (B) 52 (C) 41 (D) 51

12. Fill in the missing number : 0, 3, 12, 30, ?, 105, 168
(A) 61 (B) 62 (C) 60 (D) 63

13. Fill in the missing number : 15, 20, 30, ?
(A) 45 (B) 40 (C) 48 (D) 50

14. Fill in the missing number : 11, 10, ?, 100, 1001, 1000, 10001
(A) 110 (B) 111 (C) 101 (D) None of these

15. Fill in the missing number : 99, 95, 86, 70, ?
(A) 45 (B) 62 (C) 65 (D) 55

16. Fill in the missing number : 5, 18, 10, 12, 15, ?
(A) 4 (B) 8 (C) 6 (D) 10

17. Fill in the missing number : 12, 8, 14, 6, 16, ?
(A) 18 (B) 4 (C) 32 (D) 10

18. Fill in the missing number : 6, 15, 35, 77, ?
(A) 87 (B) 143 (C) 133 (D) 103

19. Fill in the missing number : 3, 15, 35, ? 99, 143
(A) 68 (B) 58 (C) 63 (D) 45

20. Fill in the missing number : 4, 7, 11, 18, 29, 47, ? , 123, 199
(A) 71 (B) 82 (C) 76 (D) 77

ASSIGNMENT-2

The numbers in the following questions have a certain pattern in their order. Determine the pattern and fill in the missing number

21. 28, 27, 25, 22, ____
(A) 15 (B) 17 (C) 18 (D) 21

22. 40, 42, 46, ____
(A) 45 (B) 68 (C) 54 (D) 20

23. 38, 42, 46, 50, ____
(A) 46 (B) 56 (C) 54 (D) 60

24. 40, 78, 116, ____
(A) 132 (B) 154 (C) 168 (D) 206

25. 3, 4, 7, 11, 18, ____
(A) 20 (B) 24 (C) 29 (D) 31

26. 3, 2, 5, 7, 12, ____
(A) 17 (B) 18 (C) 19 (D) 16

27. 3, 8, 13, 18, 23, ____
(A) 25 (B) 21 (C) 28 (D) 27

28. 3, 4, 6, 9, 13, ____
(A) 15 (B) 12 (C) 18 (D) 16

29. 3, 8, 12, 15, 17, ____
(A) 13 (B) 21 (C) 18 (D) 19

30. 5, 9, 10, 28, ____, 65, 26
(A) 17 (B) 33 (C) 28 (D) 49

31. 2, 6, 14, ____, 62, 126
(A) 16 (B) 30 (C) 32 (D) 28

32. 32, 27, 30, 29, ____, 31, 26, 33
(A) 35 (B) 26 (C) 28 (D) 25

33. 4, 6, 9, 13½ , ____
(A) 18 ½ (B) 20 ½ (C) 18 ¾ (D) 20 ¼

34. 6, 18, 3, 21, 7, ____, 8
(A) 56 (B) 63 (C) 42 (D) 69

35. 9, 19, 12, 25, 14, ____
(A) 28 (B) 29 (C) 27 (D) 26

36. 7, 22, 67, ____, 607
(A) 102 (B) 408 (C) 202 (D) 154

37. 1, 2, 2, 4, ____, 6, 4, 8
(A) 25 (B) 3 (C) 18 (D) 9

38. 5, 9, 6, 10, 7, 11, 8, 12, ____
(A) 13 (B) 15 (C) 9 (D) 10

39. 3, 9, 4, 16, 5, 25, 6, 36, 7, ____
(A) 39 (B) 42 (C) 49 (D) 53

40. 5, 10, 8, 16, 12, 24, 18, ____
(A) 31 (B) 39 (C) 36 (D) 42

PREVIOUS YEAR NTSE QUESTIONS

41. 4, 6, 16, 62, 308, ?
(A) 990 (B) 172 (C) 698 (D) 1846

42. 3, 15, 35, ?, 99, 143
(A) 48 (B) 63 (C) 80 (D) 95

43. 2, 10, 30, 68, ___, 222
(A) 120 (B) 130 (C) 134 (D) 150

44. 2, 17, 52, ____, 206
(A) 73 (B) 85 (C) 113 (D) 184

45. 3, 6, 24, 30, 63, 72, ?, ?, 195, 210
(A) 117, 123 (B) 120, 132 (C) 123, 135 (D) 135, 144

46. 5, 10, 17, 26, 37, 50, ?
(A) 70 (B) 66 (C) 65 (D) 64

47. 6, 25, 62, 123, (?), 341
(A) 216 (B) 214 (C) 215 (D) 218

48. 5, 3, 10, 8, 13, 15, (?), 24
(A) 26 (B) 27 (C) 29 (D) 36

49. 2, 6, 12, 20, 30, (?)
(A) 40 (B) 42 (C) 44 (D) 46

50. 50, 55, 61, 68, ___
(A) 81 (B) 80 (C) 75 (D) 76

51. 144, 121, 100, 81, ___
(A) 80 (B) 72 (C) 64 (D) 60

52. 2, 10, 26, ___, 122
(A) 80 (B) 81 (C) 82 (D) 83

53. 0, 6, 24, 252
(A) 620 (B) 1040 (C) 3120 (D) 5430

54. 6, 24, 60, 120, ?
(A) 180 (B) 210 (C) 240 (D) 360

CHAPTER

2 Letter Series

Letter Series

In letter series the letters follow a definite order. The given series of letters can be in natural order of in reverse order of combination of both. The letters may be skipped or repeated or consecutive. The given series may be single or may even comprise of two different series merged at alternate positions. While attempting questions on letter series one should note the pattern of alphabet series.

Alphabets in natural series

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
↓				↓					↓					↓					↓						↓	
1st				5th					10th					15th					20th						25th	

Alphabets in reverse series are:

Z	Y	X	W	V	U	T	S	R	Q	P	O	N	M	L	K	J	I	H	G	F	E	D	C	B	A
↓				↓					↓					↓					↓						↓	
1st				5th					10th					15th					20th						25th	

Note : On reaching Z, the series restarts from A and on reaching A, it restarts from Z.

Examples

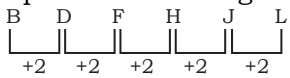
1. Which of the given options will complete the given series?

   B D F H J ?

   (A) L (B) O (C) M (D)K

Solution

(A) The series follows the pattern of moving the letters two steps forward.



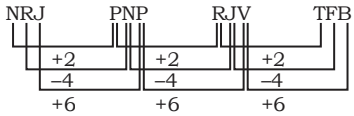
2. Which combination of letters complete the given series :

   NRJ, PNP, RJV, ?

   (A) BFT (B) TFB (C) TBF (D) BTF

Solution

(B) The letters ion one group correspond to the letters in the next group in the manner two steps forward, four steps backward, six steps forward (+2, –4, +6) respectively, i.e.



ASSIGNMENT-1

Direction (1 to 20) Select an appropriate term that completes the series

1. C, L, E, M G, N, I, ?
   (A) J (B) K (C) P (D) O
2. Z, X, U, Q, L, ?
   (A) K (B) i (C) F (D) G
3. H, J, M, O, R, T, ?
   (A) W (B) S (C) U (D) V
4. B, D, G, K, M, P, ?
   (A) Q (B) R (C) T (D) S
5. G, J, M, P, S, V, ?
   (A) W (B) Z (C) X (D) Y
6. F, L, , Q, U, X, ?
   (A) B (B) Z (C) Y (D) A
7. Z, T, O, K, H, ?
   (A) G (B) F (C) E (D) C
8. B, B, C, D, D, F, E, ____, F
   (A) E (B) H (C) D (D) G
9. X, V, T, R, P, ____
   (A) O (B) M (C) N (D) T
10. BDF, GIK, ____, QSU
    (A) LNP (B) MLN (C) JKL (D) KLM
11. B F J N ?
    (A) R (B) H (C) P (D) Z
12. W K T N ?
    (A) S (B) Q (C) R (D) O
13. F G I L P ?
    (A) V (B) U (C) T (D) W
14. R M W H ?
    (A) L (B) T (C) X (D) B
15. L J H F ?
    (A) A (B) D (C) E (D) V
16. U W V X W ?
    (A) V (B) T (C) Y (D) U
17. B C F G J ?
    (A) M (B) L (C) I (D) K
18. Y A V X S ?
    (A) U (B) W (C) V (D) T
19. D R G O ?
    (A) S (B) J (C) L (D) T
20. T W V Y X ?
    (A) B (B) Y (C) X (D) A

ASSIGNMENT-2

Direction (21 to 40) : Which letter number will not fit in the series.

21. 7V, 13U, 19R, 23P, 26M
(A) 19r (B) 13U (C) 23P (D) 7V

22. F24, J15, M11, R6, X2
(A) P24 (B) R6 (C) J15 (D) M11

23. S21H, W16E, Z12C, A81, C7X
(A) W16E (B) A81 (C) Z12C (D) C7X

24. 2T, 4R, 12V, 18R, 72X
(A) 4R (B) 12V (C) 2T (D) 18R

25. N14, L13, K9, J6, I4
(A) J4 (B) L13 (C) J6 (D) N14

26. N22D, R16C, T13Z, W10X, Z8V
(A) Z12V (B) T13Z (C) R16C (D) N12D

27. 2O, 6Q, 2P, 8U, 6W
(A) 8U (B) 2O (C) 2P (D) 6Q

28. X2R, V6P, T12N, S3OM, P72J
(A) V6P (B) T12S (C) S30M (D) X2R

29. E13, B19, Z23, W25, V20
(A) B19 (B) W25 (C) E13 (D) V20

30. A1, B5, C9, D16
(A) B5 (B) C9 (C) D16 (D) A1

31. 1T, 4R, 6K, 24H, 120F
(A) 6K (B) 24H (C) 120F (D) 4R

32. 25F, 16N, 49O, 64R, 49H
(A) 49H (B) 64R (C) 16N (D) 25F

33. U9, Y12, X13, Z16, C18, E19
(A) E19 (B) U9 (C) X13 (D) Y12

34. 12H, 8K, 10M, 4S, 8R
(A) 10M (B) 8R (C) 4S (D) 8K

35. J18, F11, E9, B6, Z4
(A) B6 (B) F11 (C) Z4 (D) F9

36. 5, R, 8, P, 10, N, 14, L, 17, J
(A) R (B) 8 (C) 10 (D) 17

37. 2, C, 4, H, 8, N, 16, R, 32, W
(A) R (B) H (C) N (D) 4

38. R9, T10, V9, X12
(A) X12 (B) V9 (C) T10 (D) R9

39. 64, S, 32, U, 16,8, Y, 4, B
(A) 8 (B) X (C) B (D) Y

40. 4, S, 7, O, 11, K, 25, G, 49, C
(A) 7 (B) O (C) G (D) 11

PREVIOUS YEAR NTSE QUESTIONS

41. b, c, e, g, k, ?, q, s
(A) l (B) m (C) n (D) o

42. BYA, CXB, ?, EVD
(A) DVE (B) DCW (C) DXB (D) DWC

43. ZA13, YB15, XC17, ?
(A) WC19 (B) WD18 (C) WD20 (D) WD19

44. BNQ, CMR, DLS, ?
(A) FOT (B) EGT (C) FGT (D) EKT

45. BEG, DGI, FIK, HKM, (?)
(A) JMO (B) KMO (C) JML (D) JNP

46. KEM, IDL, GCK, ?, CAI
(A) ECJ (B) EBK (C) FBJ (D) EBJ

47. JCME, LDOG, NEQT, (?)
(A) PFSJ (B) PESI (C) PISK (D) PFSK

48. A4X, D9U,G16R, ___
(A) K25P (B) J25P (C) J25O (D) J25C

49. APZLT, CQYNR, ERXPP, GSWRN, ITVTL, _____
(A) KUUVJ (B) KVUUJ (C) JUVUR (D) KVUVJ

50. BD, HJ, NP, ?, ZB
(A) RS (B) TV (C) YC (D) TV

CHAPTER

3

Letter Repeating Series

Letter Repeating Series

In this type of series small letters of the alphabet are used to make a set of letters which are repeated. The candidate has to find the set of letters which will fit the blanks left in the given series in such a manner that one section of the series is further repeated in the same manner

Example

1. Which of the following groups of letters will complete the given series?

   ba _ b _aab _ a _ b

   (A) baab (B) abba (C) abaa (D) babb

Solution

(B) The series is baab, baab, baab. Here the section 'baab' is repeated in the series.

The candidate has to look for clues to solve such series pattern. 'aab' in the series indicates that 'b' in this series is preceded by two 'a' so, the first blank and the last blank will be filled by 'a'. Now the first set is formed, i.e., 'baab' in the beginning. This set is repeated, so the second and third blanks will have 'b' filling them. Now, solve the exercise given below to know the different ways in which these series are formed.

ASSIGNMENT-1

1. c_bbb_ _abbbb_abbb_

   (A) abccb (B) bacbb (C) aabcb (D) abacb

2. ac_cab_baca_aba_acac

   (A) bcbb (B) aacb (C) babb (D) acbc

3. _ _aba_ _ba_ab

   (A) abbab (B) bbaba (C) baabb (D) abbba

4. _ _babbba_a_ _

   (A) bbaba (B) babbb (C) baaab (D) ababb

5. k_mk_lmkkl_kk_mk

   (A) lklm (B) lkmk (C) lkmm (D) lkml

6. abc_d_bc_d_b_dd

   (A) decdb (B) dadac (C) cdabe (D) bacde

7. ba_cb_b_bab_

   (A) acbb (B) bcaa (C) cabb (D) bacc

8. ab_aa_caab_aab_a

   (A) bcbc (B) bbca (C) cbcc (D) caba

9. _bbcaa_bcaa_bc_a_bca
(A) bacab (B) abbab (C) abcba (D) bcaab

10. a_bccb_ca_cca_baab_c
(A) accab (B) abcaa (C) bacaa (D) ababc

11. _cbc_a_bcaac_ca
(A) aaba (B) caab (C) bcab (D) aacb

12. ab_ba_ _ba_
(A) abba (B) baab (C) baba (D) abab

13. yx_yx_yxz_xzy_zyxz
(A) zzyx (B) xxzy (C) yyzx (D) yzxz

14. xxxy_y_xxy_yxx_
(A) xyxy (B) yxyx (C) yyxx (D) xxyy

15. aaab_aaaaba_a_abaa
(A) baa (B) aaa (C) aba (D) bba

16. nl_n_mn_m_lm
(A) mlnn (B) lnnm (C) mlnl (D) mlln

17. lm_nnll_mn_llmm_nl
(A) lmmn (B) lnnm (C) mmnn (D) mnll

18. aba_caab_cca_bac_a
(A) cbac (B) caac (C) bccb (D) abcb

19. _cd_bc_ab_dabc_a
(A) badcd (B) ccddb (C) abccd (D) ccbad

20. _ba_baa_ab_a
(A) babb (B) baab (C) abbb (D) aaba

ASSIGNMENT-2

21. ab_da_cd_bc_
(A) abdc (B) cbad (C) bcad (D) acbd

22. _yyx_xxyx_yxyx_y
(A) yxxy (B) xyxy (C) yxyx (D) xyyx

23. a_ba_bb_ab_a
(A) abab (B) baab (C) baba (D) abbb

24. x_yyx_y_ _ xyy
(A) xyyy (B) yyyx (C) xyxy (D) xxyx

25. _bcbc_caba_ _
(A) aabc (B) abac (C) caab (D) baba

26. b_ac_cc_cb_ab_ac
(A) cbaba (B) bbaac (C) abbbc (D) aabba

27. c_ac_aa_aa_bc_bcc
(A) cabba (B) ccbbb (C) bbbbb (D) cbacb

28. b_b_bb_ _bbb_bb_b
(A) bbbbba (B) bbaaab (C) abababb (D) aabaab

29. abca_bcaab_aa_caa_c
(A) bbac (B) bbaa (C) acbb (D) acac

30. ccb_c_bbc_b_cc_ _ ccbb
(A) bccbbb (B) bcccbb (C) aaaaba (D) bbbbbb

31. a_bbc_aab_cca_bbcc
(A) bacb (B) acba (C) abba (D) caba

32. ab_aa_bbb_aaa_bbba
(A) abba (B) baab (C) aaab (D) abab

33. bc_b_c_b_ccb
(A) cbcb (B) bbcb (C) cbbc (D) bcbc

34. abb_baa_a_bab_aba
(A) abba (B) abab (C) ccac (D) aabb

35. abca_bcaab_ca_bbc_a
(A) ccaa (B) bbaa (C) abac (D) abba

36. aaa_bb_aab_baaa_bb
(A) abab (B) bbaa (C) babb (D) baab

37. cc_ccbc_accbcc_c_b
(A) acac (B) abac (C) abab (D) aabc

38. _bcdbc_dcabd_bcdbc_dc_bd
(A) aaaaa (B) ccccc (C) bbbbb (D) ddddd

39. a_abbb_ccccd_ddccc_bb_ba
(A) abcda (B) abdbc (C) abdcb (D) abcad

40. a_cdaab_cc_daa_bbb_ccddd
(A) bdbda (B) bddca (C) dbbca (D) bbdac

PREVIOUS YEAR NTSE QUESTIONS

41. gfe_ig_eii_fei_gf_ii
(A) eifgi (B) figie (C) ifgie (D) ifige

42. ab _ _ _b _ bbaa _
(A) abaab (B) abbab (C) baaab (D) babba

43. _ _ J _ V _ J W _ U _ _
(A) W U V U V U J (B) V W U V W U J
(C) V U W U V J W (D) J V U V J V J

44. _ _ J _ F _ J M _ S J_
(A) S F M S F S (B) F S M S F M (C) M F S S F M (D) F M S M S F

45. _ _ K _ E _ K X _ P _ X
(A) P E X E P K (B) P K E X E K (C) K E P E X K (D) E P X P E K

46. _ F S _ G _ S _ G F _ L
(A) G L F L S (B) L G F L S (C) S G L F L (D) F L G S F

47. _acca_ccca_accc_aaa
(A) caac (B) ccaa (C) caaa (D) None of these

48. ab _ a _ b _ a _ bba

(A) aaab (B) abbab (C) baaab (D) babba

49. ab _ aabb _ _ bb _

(A) abbb (B) abab (C) baba (D) baaa

50. babc _ abbccc _ cdbbc _ dddc _ eccddee

(A) adcd (B) abcd (C) bcdc (D) babd

CHAPTER

4 Number Analogy

Number Analogy

In number analogy also, the relationship between the given numbers is detected and then applied to the second part to find the missing numbers. This relationship between the numbers can be based on any of the following pattern

(i) numbers can be odd / even/ prime numbers

(ii) numbers can be multiples of one number;

(iii) numbers can be squares / cubes of different numbers

(iv) some numbers can be added to / subtracted from/ multiplied to / divided into the first number to get the second number;

(v) the second number can be the sum / product/ difference of the digits of first number;

(vi) combinations of any mathematical calculations given above can apply to the relationship between the two given numbers.

Examples

1. Which number will come in the place of the question mark?

25 : 81 : : 36 : ?

(A) 121 (B) 93 (C) 65 (D) 103

Solution

(A) All the numbers are squares of different numbers.

25	:	81	: :	36	:	121
↓		↓		↓		↓
5^2		9^2		6^2		11^2

2. Which number will come in the place of the question mark?

36 : 18 : : 72 : ?

(A) 164 (B) 134 (C) 94 (D) 14

Solution

(D) The second number is the product of digits of the first number.

36 : 18 : : 72 : 14

------3×6------ ------7×2------

ASSIGNMENT-1

1. 5 : 24 : : 8 : ?
   (A) 65 (B) 63 (C) 62 (D) 64
2. 12 : 6 : : 36 : ?
   (A) 12 (B) 18 (C) 20 (D) 22
3. 6 : 9 : : 7 : ?
   (A) 4 (B) 14 (C) 10 (D) 28
4. 7 : 28 : : 2 : ?
   (A) 8 (B) 16 (C) 24 (D) 12
5. 65 : 30 : : 44 : ?
   (A) 79 (B) 62 (C) 28 (D) 16
6. 99 : 76 : : 24 : ?
   (A) 1 (B) 13 (C) 9 (D) 7
7. 2 : 15 : : 3 : ?
   (A) 81 (B) 80 (C) 26 (D) 28
8. 663 : 884 : : 221 : ?
   (A) 332 (B) 554 (C) 773 (D) 442
9. 16 : 0.16 : : ?
   (A) 2 : 0.02 (B) 7 : 0.007 (C) 1.3 : 0.13 (D) 0.01 : 0.001
10. $3 : \frac{1}{3} : : ?$
    (A) 6 : 12 (B) $5 : \frac{2}{15}$ (C) $8 : \frac{1}{8}$ (D) 9 : 27
11. 43 : 34 : : 52 : ?
    (A) 49 (B) 25 (C) 36 (D) 64
12. 65 : 13 : : 180 : ?
    (A) 93 (B) 36 (C) 133 (D) 102
13. 882 : 447 : : 881 : ?
    (A) 444 (B) 445 (C) 446 (D) 447
14. 27 : 125 : : 343 : ?
    (A) 729 (B) 64 (C) 216 (D) 512
15. 30 : 42 : : 56 : ?
    (A) 92 (B) 21 (C) 38 (D) 72
16. 190 : 10 : 102 : ?
    (A) 4 (B) 7 (C) 3 (D) 5
17. 95 : 38 : : 167 : ?
    (A) 110 (B) 120 (C) 113 (D) 134
18. 4 : 36 : : 6 : ?
    (A) 63 (B) 54 (C) 48 (D) 30
19. 6 : 12 : : 20 : ?
    (A) 50 (B) 30 (C) 42 (D) 38
20. 6 : 18 : : 4 : ?
    (A) 2 (B) 6 (C) 8 (D) 16

ASSIGNMENT-2

21. 8 : 26 : : 9 : ?
(A) 37 (B) 48 (C) 29 (D) 33

22. 3 : 30 : : 6 : ?
(A) 20 (B) 60 (C) 40 (D) 70

23. 12 : ? : : 9 : 144
(A) 186 (B) 173 (C) 192 (D) 275

24. 7 : ? : : : 8 : 21
(A) 13 (B) 15 (C) 19 (D) 21

25. 2 : 25 : : 3 : ?
(A) 33 (B) 35 (C) 36 (D) 37

26. 4 : ? : : 6 : 74
(A) 68 (B) 50 (C) 76 (D) 80

27. ? : 35 : : 3 : 15
(A) 5 (B) 6 (C) 7 (D) 8

28. 484 : ? : : 576 : 24
(A) 32 (B) 42 (C) 62 (D) 22

29. 2 : 8 : : ? : 512
(A) 12 (B) 9 (C) 8 (D) 6

30. 1331 : 122 : : 1728 : ?
(A) 125 (B) 186 (C) 114 (D) 145

31. 125 : ? : : 512 : 66
(A) 27 (B) 51 (C) 29 (D) 67

32. 784 : ? : : 289 : 17
(A) 86 (B) 16 (C) 31 (D) 28

33. 441 : 28 : : 256 : ?
(A) 26 (B) 24 (C) 23 (D) 32

34. 2197 : ? : : 1728 : 12
(A) 13 (B) 17 (C) 15 (D) 16

35. 625 : ? : : 676 : 31
(A) 28 (B) 42 (C) 30 (D) 56

36. ? : 324 : : 24 : 576
(A) 14 (B) 16 (C) 18 (D) 20

37. 3375 : 15 : : 5832 : ?
(A) 14 (B) 16 (C) 15 (D) 18

38. 24 : ? : : 21 : 9261
(A) 13824 (B) 12632 (C) 14423 (D) 15648

39. 13824 : 24 : : 4096 : ?
(A) 12 (B) 14 (C) 16 (D) 18

40. 324 : ? : : 225 : 5
(A) 2 (B) 8 (C) 4 (D) 6

PREVIOUS YEAR NTSE QUESTIONS

41. 4096 : 8 : : 1296 : ?
(A) 7 (B) 9 (C) 11 (D) 6

42. 6 : 12 : : 9 : ?
(A) 39 (B) 36 (C) 27 (D) 33

43. 5 : 18 : : ?
(A) 30 : 96 (B) 21 : 66 (C) 19 : 61 (D) 11 : 35

44. 512 : 44 : : 125 : ?
(A) 55 (B) 33 (C) 23 (D) 34

45. 467 : 9 : : 771 : ?
(A) 9 (B) 8 (C) 6 (D) 15

46. 2 2 3 5 9 : 3 5 9 17 : : 5 9 1 7 33 : ?
(A) 7 15 31 63 (B) 7 13 25 57 (C) 9 17 33 65 (D) 9 15 61 63

47. 42 : 63 : : 84 : ?
(A) 185 (B) 95 (C) 126 (D) 125

48. 731 : 902 : : 655 : ?
(A) 646 (B) 800 (C) 793 (D) 558

49. 89 : 72 : : ?
(A) 30 : 0 (B) 14 : 5 (C) 66 : 12 (D) 48 : 36

50. 162 : 9 : : 310 : ?
(A) 33 (B) 27 (C) 16 (D) 4

CHAPTER

5 Letter Analogy

Letter Analogy

In this type of analogy the relationship between two given set of letters is established and then applied to the other set to obtain the required set of letters as the answer. These letters can be moved some steps backward or forward; reversed in whole or in sections or have some common identity between each other.

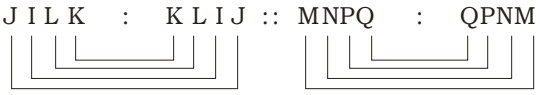
Examples

1. Which set of letters will come in the place of question mark?
   JILK : KLIJ : : MNPQ : ?

   (A) QNPM (B) MPQN (C) QPNM (D) PNMQ

Solution

(C) The letters are written in reverse order to get the related set of letters



2. Which set of letters will come in the place of question mark?
   FLO : DOL : : RDP : ?

   (A) PGM (B) MGP (C) GMP (D) MPG

Solutions

(A) The first and third letters are moved two and three steps backwards respectively and the second letter three steps forward.

ASSIGNMENT-1

1. UVW : SXU : : LMN : ?
   (A) JOL (B) KNM (C) JKL (D) MLO
2. EIGHTY : GIEYTH : : OUTPUT : ?
   (A) UTOPTU (B) UOTUPT (C) TUOUTP (D) TUOTUP
3. TSR : FED : : WVU : ?
   (A) CAB (B) MLK (C) PQS (D) GFH

4. CJDL : FMGO : : IKJR : ?
   (A) OQPT (B) RSTU (C) OQRT (D) LNMU
5. BOQD : ERTG : : ANPC : ?
   (A) DQSF (B) FSHU (C) SHFU (D) DSQF
6. ABCD : HIJK : : LMNO : ?
   (A) STUV (B) STWV (C) XYZA (D) PQRT
7. BCDA : STUR : : KLMJ : ?
   (A) VWXU (B) EFHG (C) SRTU (D) QSRP
8. AEI : LPT : : CGK : ?
   (A) OSV (B) RUY (C) TXC (D) FJN
9. RUX : TRP : : BEH : ?
   (A) SQN (B) QON (C) QOM (D) QNL
10. CART : ART : : FOUR : ?
    (A) RUN (B) TWO (C) QUE (D) OUR
11. FIK : JGO : : DFR : ?
    (A) BIO (B) HDV (C) GCU (D) FLP
12. LJH : KKI : : CIA : ?
    (A) BJB (B) DHB (C) BJC (D) BBJ
13. ACE : HIL : : MOQ : ?
    (A) SVW (B) TUX (C) RTW (D) WUS
14. BCDE : WVUT : : QRST : ?
    (A) EFHG (B) JIHG (C) POML (D) GEDC
15. PNLJ : IGEC : : USQO : ?
    (A) HJLN (B) LNJH (C) NLJH (D) JHNL;
16. DIMO : DMIO : : JUVR : ?
    (A) JVRU (B) JRVU (C) JVUR (D) JUVR
17. RRS : XMW : : ITB : ?
    (A) PNE (B) NOG (C) RSW (D) OOF
18. ODRS : OSRD : : PAGJ : ?
    (A) PJGA (B) PJAG (C) PGJA (D) PGAJ
19. MEQI : JUOD : : ANIW : ?
    (A) RUKE (B) URIA (C) EUIO (D) PTRE
20. AKU : AJS : : CRD : ?
    (A) BQE (B) CQB (C) DSB (D) APC

ASSIGNMENT-2

21. KL : PQ : : _____ : _____
    (A) AB : FG (B) CD : EF (C) MN : OP (D) QR : ST
22. RS : VW : : _____ : _____
    (A) LN : ST (B) AB : DZ (C) ZY : BC (D) AB : EF
23. ZA : CD : : _____ : _____
    (A) TU : WX (B) EF : FG (C) GH : IJ (D) KC : MN
24. CD : GH : : _____ : _____
    (A) PQ : TU (B) UV : XY (C) YX : AB (D) CD : FG

25. IJ : NO : : _____ : _____
(A) MN : PQ (B) QR : ST (C) UV : WX (D) PQ : UV

26. ST : XY : : _____ : _____
(A) ZA : EF (B) AB : DE (C) FG : OP (D) QR : NO

27. DE : JK : : _____ : _____
(A) HI : NO (B) HI : LM (C) PQ : ST (D) UV : YZ

28. LM : ST : : _____ : _____
(A) CD : HI (B) GH : DE (C) FG : QR (D) CD : JK

29. KL : ST : : _____ : _____
(A) DE : BC (B) ZA: YB (C) BC : JK (D) HI : LM

30. AB : MN : : _____ : _____
(A) OP : QR (B) ST : WX (C) YZ : CD (D) EF : QR

31. XY : CD : : _____ : _____
(A) DE : GH (B) EF : JK (C) XY : AB (D) RT : UV

32. GH : KL : : _____ : _____
(A) XY : CD (B) ST : AB (C) MN : AR (D) YZ : CD

33. BC : KL : : _____ : _____
(A) LM : QR (B) MN : QR (C) YZ : CD (D) NO : WX

34. MN : PQ : : _____ : _____
(A) XY : AB (B) AB : CD (C) GH : NO (D) ST : XY

35. HI : MN : : _____ : _____
(A) QR : VW (B) XY : AB (C) IJ : MN (D) QR : TU

36. BC : HI : : _____ : _____
(A) XY : AB (B) QR : TU (C) IJ : MN (D) WX : CD

37. VW : AB : : _____ : _____
(A) MN : RS (B) PR : VW (C) IP : MN (D) GH : KL

38. YZ : DE : : _____ : _____
(A) MN : QR (B) UL : FA (C) HI : MN (D) PQ : RS

39. VW : YZ : : _____ : _____
(A) MO : RS (B) MN : QR (C) HI : MN (D) MN : PQ

40. QR : UV : : _____ : _____
(A) WX : YZ (B) KL : OP (C) GH : IJ (D) DE : XY

PREVIOUS YEAR NTSE QUESTIONS

Direction (41 to 50) Find out the alternative which will replace the question (?) mark.

41. REASON : SFBTPO : : THINK : ?
(A) SGHMJ (B) UIJOL (C) UHNKI (D) UJKPM

42. ACFJ : ZXUQ : : EGIN : ?
(A) VUSQ (B) UTRP (C) VRPM (D) VTRM

43. corden : zrogbq : : ? : pxivro
(A) mulmul (B) sulsul (C) munmun (D) srspql

44. DGJM : BEHK : : PSVY : ?
(A) NQTW (B) CGJN (C) BFKM (D) BHLO

45. GCAE : 4 : : JEBH : ?
(A) 6 (B) 7 (C) 5 (D) 8

46. MANTEL : NAMLET : : VANITY : ?
(A) NAVYIT (B) NAVYTI (C) NAVIYI (D) AVNTIY

47. APOC : ? : : ITSK : MVUN
(A) DRQH (B) ERQF (C) EQRG (D) DQRH

48. AXD : EWB : : ? : JRG
(A) ETH (B) FSI (C) HRK (D) FRJ

49. CD10Q : FG16C : : IJ220 : ?
(A) LM28A (B) LM28Z (C) LM28B (D) LM28C

50. BYVE : GTQJ : : CXUF :
(A) HSQJ (B) IROL (C) HSPK (D) GTRI

CHAPTER

6 Word Analogy

Word Analogy

In Analogy test the relationship between two given words is established and then applied to the other words. The type of relationship may vary, so while attempting such questions the first step is to identify the type of relationship, which can be any one of the following.

Examples

A. Action object Relationship

1. Shoot is to Gun as Eat is to _____

(A) Hunger (B) Thirst (C) Dinner (D) Fruit

Solution

(D) The relationship between the given words is that 'shoot' is the action and 'Gun' is the specified object of action. Similarly 'eat is the action and fruit is the specified object.

B. Association Relationship

2. Glamour is to Stardom as Colour is to _____

(A) Rainbow (B) Shades (C) Art (D) Paining

Solution

(D) As glamour is associated with stardom so is colour with painting

C. Antonym Relationship

3. INTROVERT : EXTROVERT

(A) ANGLE ; TANGET (B) EXTREME ; INTERIM
(C) AGAINST : FAVOUR (D) ACTION : LAW

Solution

(C) The related words are opposite in meaning

ASSIGNMENT-1

1. WATER : SAND : : OCEAN : ?

(A) Island (B) River (C) Desert (D) Waves

2. ADULT : BABY : : FLOWER : ?

(A) Seed (B) Bud (C) Fruit (D) Butterfly

3. WRITER : READER : : PRODUCER : ?

(A) Creator (B) Contractor (C) Creature (D) Consumer

4. ENTRANCE : EXIT : : LOYALTY : ?

(A) Treachery (B) Patriotism (C) Fidelity (D) Reward

5. MOTHER : MATERNAL : : FATER : ?
(A) Eternal (B) Detrimental (C) Paternal (D) Sentimental

6. PEARL : NECKLACE : : FLOWER : ?
(A) Plant (B) Garden (C) Petal (D) Bouquet

7. ALPHABET : WORD : : WORD : ?
(A) Sound (B) Music (C) Sentence (D) Dictionary

8. LIFE : DEATH : : HOPE : ?
(A) Cry (B) Pain (C) Despair (D) Sad

9. GOOD : BAD : : VIRTUE : ?
(A) Blame (B) Sin (C) Despair (D) Vice

10. BIRD : FLY : : SNAKE : ?
(A) Timid (B) Clatter (C) Crawl (D) Hole

11. CAT : MOUSE : : BIRD : ?
(A) Cage (B) Trap (C) Eagle (D) Worm

12. STATE : EXILE :: ?
(A) Police : Arrest (B) Judge : Convict
(C) Constitution : Amendment (D) Church : Excommunicate

13. CAPRICIOUSNESS : RELIABILITY :: ?
(A) Extemporaneous : Predictability (B) Unreliable : Inhuman
(C) Tenacious : Practicality (D) Arbitrary : Whimsical

14. LOATH : COERCION :: ?
(A) Detest : Caressing (B) Irritate : Caressing
(C) Irate : Antagonism (D) Reluctant : Persuasion

15. SCALES : FISH :: ?
(A) Lady : Dress (B) Tree : Leaves
(C) Bird : Feather (D) Skin : Man

16. TREE : SAPLING :: ?
(A) Hut : Mansion (B) Giant : Dwarf
(C) Horse : Foal (D) Ant : Elephant

17. CHALK : BLACKBOARD :: ?
(A) Door : Handle (B) Table : Chair
(C) Ink : Paper (D) Type : Paint

18. PRIMEVAL : MEDIEVAL :: ?
(A) Dinosaur : Dragon (B) Gorilla : Soldier
(C) Evolution : Revelation (D) Thorn : Rose

19. TRILOGY : NOVEL :: ?
(A) Rice : Husk (B) Milk : Cream
(C) Fabric : Weaving (D) Serial : Episode

20. PEDANT : ERUDITION :: ?
(A) Prude : Modesty (B) Blunt : Politician
(C) Diplomats : Tactless (D) Enemy : Friendly

ASSIGNMENT-2

21. Banlgadesh : Mango Tree
(A) USA : Beech (B) Bhutan : Maple Tree
(C) India : Banana Tree (D) Pakistan : Deodar

22. Rudimentary : Elementary
(A) Din : Silence (B) Limpid : Clear
(C) Jeopardy : Safety (D) Kindle : Extinguish

23. Linguistics : Language
(A) Ecologist : Weather (B) Zenith : Height
(C) Toxicologist : Distance (D) Seismology : Earthquakes

24. India : Rupee
(A) UK : Ruble (B) Argentia : Pound
(C) China : Yuan (D) UAE : Drachma

25. Angle : Radian
(A) Temperature : Low (B) Power : Supply
(C) Time : Shot (D) Conductivity : Mho

26. Oriya : Odisha
(A) Tamil : Tamil Nadu (B) Sindhi : Surat
(C) Punjabi : Amritsar (D) Haryanvai : Rohtak

27. Lioness : Lion
(A) Buck : Rabbit (B) Fox : Dog
(C) Bitch : Wolf (D) Mare : Pig

28. Electrically : Electrology
(A) Future : Futurology (B) History : History
(C) Geology : Earth Curst (D) Hideology : Fear

29. Maldives : Coconut Palm
(A) China : Palma real (B) Oak : Italy
(C) Cherry Blossom : Japan (D) Indonesia : Teak

30. Queue : Line
(A) Surplus : Deficit (B) Ruddy : Healthy
(C) Loath : Eager (D) Retentive : Forgetful

31. Thailand : Bangkok
(A) Manila : Russia (B) Nicosia : Canada
(C) China : Shanghai (D) Turkey : Ankara

32. Lohri : Punjab
(A) Shigmo : Goa (B) Navratras : Bihar
(C) Rajasthan : Holi (D) Tami Nadu : Thaipusam

33. Master : Mistress
(A) Drone : Douen (B) Nun : Monk
(C) Bachelor : Spinster (D) Goose : Gander

34. Thunder : Roar
(A) Croak : Frog (B) Beat : Drum
(C) Rustle : Leaves (D) Rain: Jingles

35. Rat : Rodent
(A) Amphibian : Frog (B) Chair : Wood
(C) Pen : Wood (D) Buttery : Insect

36. Cow : Elephant
(A) Bull : Cattle (B) Rat : Mouse
(C) Dog : Cat (D) Vixen : Fox

37. Earth Crust : Geology
(A) Numerology : Number (B) Material Wealth : Economics
(C) Ideology : Personality (D) Neurology : Nervous System

38. Haphazard : Deliberate
(A) Importunate : Demurring (B) Judicious : Wise
(C) Disconsolate : Joyous (D) Gregarious : Helpful

39. Assam : Bodo
(A) Kannda : Canada (B) Jaipur : Jaipure
(C) Tamil : Tami Nadu (D) Gujrat : Gujrati

40. January : Orion
(A) Ursa minor : June (B) July : Scorpius
(C) August : Cygnus (D) Ursa Major : April

PREVIOUS YEAR NTSE QUESTIONS

41. Guitar : Music : : Book : ?
(A) Pages (B) Writer (C) Publisher (D) Knowledge

42. Stimulant : Activity : :
(A) Symptom : Disease (B) Food : Hunger
(C) Fertilizer : Growth (D) Diagnosis : Treatment

43. Race : Fatigue : : _____ : _____
(A) Fast : Hungry (B) Fast : Energy (C) Fast : Food (D) Fast : Fatigue

44. Penology : Punishment : : Seriology
(A) Law (B) Earthquake (C) Line (D) Medicine

45. Sink is to float. In the same way, destroy is to
(A) Enemy (B) Alive (C) Peace (D) Water

46. Author is to book, in the same way, _____ is related to
(A) Human, Society (B) Engineer, Building
(C) Naron, Building, (D) Fruits,

47. Drop : Ocean : : Constellation: ?
(A) Shine (B) Sky (C) Light (D) Star

48. Bank : Rupees : : Transport : ?
(A) Goods (B) Road (C) Traffic (D) Speed

49. Market : Demand : : Farming : ?
(A) Farmer (B) Monsoon (C) Foodgrain (D) Supply

50. Heart : Blood : : Lung : ?
(A) Oxygen (B) Chest (C) Purification (D) Air

51. Engineer : Machine : : ?
(A) Doctor : Disease (B) Doctor : Medicine
(C) Doctor : Hospital (D) Doctor : Body

CHAPTER

7

Odd One Out Number

Odd One Out – Numbers

In this type of classification, different numbers are given as option. These numbers have some commonness; except one which is the odd one. One has to identify the similarity and then strike the odd one out as answer option. The number can be odd/ even/consecutive, prime numbers, multiple of some number, single, square or cubes of different numbers, plus/minus of some other number or combinations of any mathematical calculation.

Example

1. Find the odd number from the given options

(A) 62 (B) 121 (C) 36 (D) 256

Solution

(A) 11 (=121), 6 (=36) and 16 (=256)

2. Find the odd number from the given options

(A) 27 (B) 132 (C) 93 (D) 154

Solution

(D) All other numbers are divisible by 3.

ASSIGNMENT-1

Direction (1 to 20) : Find the odd number from the given option

1.	(A) 3	(B) 9	(C) 5	(D) 7
2.	(A) 6450	(B) 1776	(C) 2392	(D) 3815
3.	(A) 24	(B) 48	(C) 42	(D) 12
4.	(A) 616	(B) 252	(C) 311	(D) 707
5.	(A) 18	(B) 12	(C) 30	(D) 20
6.	(A) 3730	(B) 6820	(C) 5568	(D) 4604
7.	(A) 2587	(B) 7628	(C) 8726	(D) 2867
8.	(A) 63	(B) 29	(C) 27	(D) 25
9.	(A) 23	(B) 37	(C) 21	(D) 31

10.	(A) 18	(B) 9	(C) 21	(D) 7
11.	(A) 9875432	(B) 98765	(C) 98756	(D) 9876543
12.	(A) 602	(B) 431	(C) 530	(D) 813
13.	(A) 4	(B) 6	(C) 7	(D) 10
14.	(A) 3456	(B) 2345	(C) 5467	(D) 5678
15.	(A) 10	(B) 11	(C) 15	(D) 16
16.	(A) 336	(B) 213	(C) 436	(D) 819
17.	(A)258	(B) 326	(C) 224	(D) 339
18.	(A) 28751	(B) 52638	(C) 85362	(D) 63852
19.	(A) 73	(B) 43	(C) 63	(D) 83
20.	(A) 64	(B) 27	(C) 125	(D) 9

ASSIGNMENT-2

Direction (21 to 40) : Find the odd number from the given option

21.	(A) 63	(B) 49	(C) 21	(D) 81
22.	(A) 2349	(B) 3264	(C) 4386	(D) 2649
23.	(A) 7642	(B) 9325	(C) 5840	(D) 6318
24.	(A) 565	(B) 315	(C) 275	(D) 435
25.	(A) 28	(B) 65	(C) 117	(D) 91
26.	(A) 625	(B) 225	(C) 122	(D) 256
27.	(A) 375289	(B) 293463	(C) 223759	(D) 380546
28.	(A) 1213211	(B) 1320816	(C) 1420117	(D) 1524016
29.	(A) 5243	(B) 9251	(C) 4256	(D) 3257
30.	(A) 102	(B) 143	(C) 51	(D) 136
31.	(A) 23	(B) 37	(C) 9	(D) 17
32.	(A) 144	(B) 196	(C) 78	(D) 36
33.	(A) 11	(B) 17	(C) 61	(D) 21
34.	(A) 11	(B) 8	(C) 6	(D) 9
35.	(A) 249	(B) 546	(C) 852	(D) 647
36.	(A) 468	(B) 853	(C) 734	(D) 918
37.	(A) 1	(B) 64	(C) 8	(D) 65
38.	(A) 10	(B) 15	(C) 25	(D) 35

39. (A) 1 (B) 0.5 (C) 2 (D) 3

40. (A) 0 (B) 5 (C) 10 (D) 25

PREVIOUS YEAR NTSE QUESTIONS

41. Find the odd number from the given option
(A) 512 (B) 343 (C) 125 (D)729

42. Find the odd number from the given option
(A) $(10)^3$ (B) $(100)^3/10$ (C) $2^3 \times 5^3$ (D) 2000÷2

43. Find the odd number from the given option
(A) 354 (B) 282 (C) 234 (D) 186

44. Find the odd number from the given option
(A) 273,189 (B) 255,195 (C) 247,171 (D) 221, 153

45. Which number is wrong 9, 19, 40, 83, 172, 345
(A) 172 (B) 83 (C) 40 (D) 19

46. 13, 61, 97, 117
(A) 13 (B) 61 (C) 97 (D) 117

47. 2–3, 3–7, 4–15, 5–24
(A) 2–3 (B) 3–7 (C) 4–15 (D) 5–24

48. 3175, 7531, 1357, 7315
(A) 3175 (B) 7531 (C) 1357 (D) 7315

49. Find the odd number from the given option
(A) 144,12 (B) 121,11 (C) 80,9 (D) 100,10

50. Find the odd number from the given option
(A) 417 (B) 255 (C) 183 (D) 241

CHAPTER

8

Odd One Out Letters

Odd One Out – Letters

In this classification of letters, four groups of letters or a series of letters is given as option. One has to select the option as answer which does not share the commonness of the others.

Example

1. Find the odd one out in the following letters

(A) NOP (B) RTU (C) JKL (D) EFG

Solution

(B) In each group the letters are consecutive. In this option the first two letters jump one letter (S) in between

2. Find the odd one out in the following letters

(A) RUX (B) CFI (C) BDG (D) FIL

Solution

(C) In each group, the difference between the letters is same. In this option B and D jump two letters.

ASSIGNMENT-1

Direction (1 to 20) : Find the odd letters sequence from the given option

1.	(A) ABD	(B) FGI	(C) LMO	(D) STU
2.	(A) CDE	(B) JKL	(C) PQS	(D) TUV
3.	(A) CRDT	(B) SUTV	(C) EUFV	(D) GWHX
4.	(A) IJSO	(B) YXTU	(C) RQOP	(D) FEGH
5.	(A) QePFoLA	(B) OrDFkV	(C) TuMBin	(D) XZaWoB
6.	(A) SUCEED	(B) RESURRECT	(C) SURRENDER	(D) CUNNING
7.	(A) MOTXYZ	(B) GKRVWX	(C) PSBEFG	(D) ORNODF
8.	(A) ABPQ	(B) npRs	(C) PQxY	(D) EFGH
9.	(A) CegI	(B) FhiK	(C) PrtV	(D) KnpR
10.	(A) AEHJ	(B) EIJK	(C) DHKM	(D) CGJL

11.	(A) APoQ	(B) DXeM	(C) SFiK	(D) OWjB
12.	(A) ACeG	(B) BfGH	(C) PZyE	(D) XTuW
13.	(A) KQ14	(B) AY13	(C) MR11	(D) GW15
14.	(A) ZX12	(B) PM4	(C) RJ14	(D) FD12
15.	(A) F34S	(B) D22G	(C) H42M	(D) B36P
16.	(A) MLI	(B) FEB	(C) SRN	(D) ZYV
17.	(A) PUS	(B) HLJ	(C) UYW	(D) BFD
18.	(A) DW	(B) LO	(C) JR	(D) HS
19.	(A) CEH	(B) KMP	(C) XZC	(D) NPT
20.	(A) GK	(B) MQ	(C) PU	(D) SW

ASSIGNMENT-2

Direction (21 to 40) : Find the odd letters sequence from the given option

21.	(A) E29Y	(B) H20L	(C) N31Q	(D) B25W
22.	(A) JMP	(B) RUX	(C) UYB	(D) EHK
23.	(A) MrW	(B) ChN	(C) KpU	(D) BgL
24.	(A) CdaB	(B) VwtU	(C) LmjK	(D) RsqP
25.	(A) BdEg	(B) PrSu	(C) KmNp	(D) TwXz
26.	(A) HKI	(B) UXV	(C) CFD	(D) MQN
27.	(A) VXZ	(B) GIL	(C) SUX	(D) ACF
28.	(A) BDH	(B) IKP	(C) QSW	(D) TVZ
29.	(A) EBA	(B) XUT	(C) TQP	(D) JFE
30.	(A) HDA	(B) AMI	(C) JVR	(D) OKG
31.	(A) ABC	(B) EFG	(C) IJK	(D) WYX
32.	(A) BMS	(B) HQP	(C) KSX	(D) INT
33.	(A) LMQ	(B) WXA	(C) RSW	(D) XYC
34.	(A) GNV	(B) KRZ	(C) LDL	(D) AJM
35.	(A) QCq	(B) GVg	(C) XNx	(D) RIP
36.	(A) GAK	(B) KER	(C) RIV	(D) UGY
37.	(A) QRy	(B) FZO	(C) CPT	(D) BGX
38.	(A) PGH	(B) PDR	(C) RPT	(D) OAQ
39.	(A) WXY	(B) NML	(C) DCB	(D) ZXW
40.	(A) ABY	(B) WXU	(C) MNK	(D) STP

PREVIOUS YEAR NTSE QUESTIONS

41. Find the odd letters sequence from the given option
(A) ABYZ (B) EFUV (C) IJQR (D) MNOP

42. Find the odd letters sequence from the given option
(A) AE48 (B) GK36 (C) RV24 (D) DI41

43. Find the odd letters sequence from the given option
(A) DINR (B) GLQU (C) AEJN (D) BGLP

44. Find the odd letters sequence from the given option
(A) ABNO (B) CDPQ (C) EFRS (D) GHUT

45. MQT, ADG, HKN, RUX
(A) MQT (B) ADG (C) HKN (D) RUX

46. BDF, CHK, LDO, RFX
(A) BDF (B) CHK (C) LDO (D) RFX

47. Z D U I P, L J Q E V, T A P E L, F S J O N, O J N G K
(A) L J Q E V (B) T A P E L (C) F S J O N (D) O J N G K

48. DE, PQ, TU, MO, FG
(A) DE (B) PQ (C) TU (D) MO

49. XW, FG, ML, PO, TS
(A) XW (B) FG (C) ML (D) PO

50. BD, MP, NQ, HK, TW
(A) BD (B) MP (C) NQ (D) HK

CHAPTER

9

Odd One Out Words

Odd One Out – Words

In this type of classification, four words are given out of which three are almost same in matter or meaning and only one word is different from the common four. One has to find out the word which is different from the rest.

Example

1. In the following question spot the odd one out.

(A) Father (B) Mother (C) Friend (D) Brother

Solution

(C) All other are blood reactions.

2. In the following question spot the odd one out.

(A) Water (B) Jelly (C) Lemonade (D) Coffee

Solution

(B) All other are liquids.

ASSIGNMENT-1

1.	(A) Kite	(B) Bird	(C) Radar	(D) Jet
2.	(A) Knee	(B) Palm	(C) Ankle	(D) Elbow
3.	(A) Deluge	(B) Calamity	(C) Catastrophe	(D) War
4.	(A) Cub	(B) Chicken	(C) Pig	(D) Pup
5.	(A) Rabbit	(B) Crocodile	(C) Earthworm	(D) Snail
6.	(A) Tree	(B) Leaf	(C) Bush	(D) Herb
7.	(A) Doctor	(B) Teacher	(C) Engineer	(D) Carpenter
8.	(A) Trot	(B) Equestrian	(C) Derby	(D) Grunt
9.	(A) Ornate	(B) Pleasant	(C) Decorate	(D) Beautify
10.	(A) Polo	(B) Chess	(C) Ludo	(D) Squash
11.	(A) Tutor	(B) Principal	(C) Pupil	(D) Professor
12.	(A) Pond	(B) River	(C) Stream	(D) Brook
13.	(A) Quotation	(B) Duty	(C) Tax	(D) Octroi

14.	(A) Root	(B) Tree	(C) Branch	(D) Flower
15.	(A) Mumbai	(B) Chandigarh	(C) Lucknow	(D) Hyderabad
16.	(A) Immortal	(B) Eminence	(C) Perpetual	(D) Everlasting
17.	(A) Spinach	(B) Potato	(C) Carrot	(D) Ginger
18.	(A) Van	(B) Aeroplane	(C) Helicopter	(D) Transport
19.	(A) Fathom	(B) Marine	(C) Lacuna	(D) Nautical
20.	(A) Attorney	(B) Lawyer	(C) Judge	(D) Liquidator

ASSIGNMENT-2

21.	(A) Sparrow	(B) Kingfisher	(C) Kiwi	(D) Parrot
22.	(A) Arrow	(B) Dagger	(C) Knife	(D) Sword
23.	(A) Mathematics	(B) Algebra	(C) Trigonometry	(D) Geometry
24.	(A) Irish	(B) Iranian	(C) Eastern	(D) Chinese
25.	(A) December	(B) June	(C) January	(D) March
26.	(A) Boxer	(B) Wrestler	(C) Player	(D) Cricketer
27.	(A) Mature	(B) Outdo	(C) Ripen	(D) Bloom
28.	(A) Kanpur	(B) Haridwar	(C) Varanasi	(D) Lucknow
29.	(A) Adore	(B) Like	(C) Love	(D) Covet
30.	(A) Greedy	(B) Rapacious	(C) Endear	(D) Avaricious
31.	(A) Won	(B) Yen	(C) Uro	(D) Pound
32.	(A) Karntaka		(B) Madhya Pradesh	
	(C) Haryana		(D) Jammu Kashmir	
33.	(A) Court	(B) Track	(C) Rink	(D) Judge
34.	(A) Manifest	(B) Evident	(C) Exhibit	(D) Conceal
35.	(A) Param vir Chakra		(B) Shaurya Chakra	
	(C) Vijaya Chakra		(D) Vir Chakra	
36.	(A) Racing	(B) Athletics	(C) Hockey	(D) Table tennis
37.	(A) Bangkok	(B) Fiji	(C) Ankara	(D) Harare
38.	(A) Spinster	(B) Wizard	(C) Bull	(D) Nephew
39.	(A) Eyes	(B) Face	(C) Ears	(D) Nose
40.	(A) Bangla	(B) Chinese	(C) Bengali	(D) French

PREVIOUS YEAR NTSE QUESTIONS

41. (A) Kilometer (B) Centimeter (C) Litre (D) Light year

42. (A) Milk (B) Chee (C) Butter (D) Oil

43. (A) Ahmedabad (B) Ganghinagar (C) New York (D) Mumbai

44. (A) Pen (B) Pencil (C) Chalk (D) Blackboard

45. (A) Haryana (B) Gujarat (C) Rajasthan (D) Shimla

46. (A) Iron (B) Copper (C) Brass (D) Bronze

47. (A) Pacific Ocean (B) Asia (C) Europe (D) Africa

48. (A) Nepal (B) Pakistan (C) Sri Lanka (D) Australia

49. (A) Gobi (B) Thar (C) Arabian (D) Indian

50. (A) M.F. Hussain (B) Leonardo da Vinci (C) Birju Maharaj (D) Picasso

CHAPTER

10

Inserting Missing Character – Magic Square

Magic Square

In such types of questions a figure or a matrix is given in which some numbers are filled according to a rule. A place is left blank. The candidate has to find out a number from the given possible answers which may be filled in the blank space.

Example

1. Which number will replace the question mark?

27	8	5
8	8	4
1	64	?

(A) 4 (B) 7 (C) 5 (D) 6

Solution

(A) From the I column $9 \times 5 \div 5 = 9$

From the II column $17 \times 4 \div 4 = 17$

Similarly from III column $16 \times ? \div 8 = 8$

$16 ? = 64$

$? = 4$

Hence the question mark will be replaced by 4.

2. Which number will replace the question mark?

2	3
7	2

1	1
5	3

2	3
?	5

(A) 25 (B) 10 (C) 15 (D) 12

Solution

(B) From First square : 2+3+2 = 7

From second square : 1+1+3 = 5

From third square : 2+3+5 = 10

Hence the question mark will be replaced by 10

ASSIGNMENT-1

1.

3	5	8
5	4	9
6	?	13

(A) 5 (B) 7 (C) 8 (D) 6

2.

1	2	9
3	1	16
?	2	25

(A) 5 (B) 4 (C) 2 (D) 3

3.

3	1	10
4	2	18
5	3	?

(A) 28 (B) 25 (C) 24 (D) 20

4.

2	3	?
3	4	25
2	4	20

(A) 9 (B) 12 (C) 13 (D) 15

5.

15	5	3
14	7	?
21	3	7

(A) 4 (B) 2 (C) 3 (D) 5

6.

2	3	5
7	9	?
13	17	19

(A) 9 (B) 12 (C) 10 (D) 11

7.

10	12	14
15	16	18
20	21	?

(A) 20 (B) 22 (C) 23 (D) 24

8.

1	2	3
2	5	?
3	4	31

(A) 13 (B) 12 (C) 10 (D) 16

9.

2	6	12
20	?	42
56	72	90

(A) 24 (B) 28 (C) 27 (D) 30

10.

9	16	7
16	4	?
25	9	8

(A) 9 (B) 4 (C) 6 (D) 5

11.

27	1	4
8	27	5
1	8	?

(A) 4 (B) 1 (C) 2 (D) 3

12.

4	81	5
2	?	3
6	49	1

(A) 25 (B) 20 (C) 27 (D) 30

13.

3	4	5
12	5	?
6	8	10

(A) 11 (B) 12 (C) 9 (D) 13

14.

3	2	9
2	4	16
5	3	?

(A) 25 (B) 125 (C) 35 (D) 45

15.

10	15	14
16	36	?
6	9	7

(A) 36 (B) 49 (C) 50 (D) 45

16.

2	3	55
2	1	33
2	2	?

(A) 44 (B) 40 (C) 54 (D) 66

17.

4	9	6
8	2	4
20	5	?

(A) 8 (B) 10 (C) 11 (D) 12

18.

7	4	27
3	4	?
5	3	8

(A) 3 (B) –2 (C) –1 (D) 2

19.

6	15	35
77	143	?
323	399	667

(A) 407 (B) 231 (C) 251 (D) 221

20.

4	2	2
27	1	3
16	4	?

(A) 3 (B) 4 (C) 2 (D) 5

ASSIGNMENT-2

21.

27	8	5
8	8	4
1	64	?

(A) 4 (B) 7 (C) 5 (D) 6

22.

3	12	5
18	12	10
19	?	12

(A) 14 (B) 15 (C) 16 (D) 17

23.

11	?	7
13	15	17
19	21	23

(A) 11 (B) 7 (C) 8 (D) 9

24.

7	105	15
16	144	9
17	?	8

(A) 156 (B) 146 (C) 136 (D) 132

25.

8	3	5
1	4	5
27	3	?

(A) 5 (B) 8 (C) 7 (D) 6

26.

4	1	3
9	8	?
49	27	10

(A) 8 (B) 7 (C) 5 (D) 6

27.

7	9	4
8	17	?
2	7	3

(A) 12 (B) 9 (C) 5 (D) 6

28.

3	10	6
2	?	2
5	17	2

(A) 3 (B) 13 (C) 11 (D) 5

29.

1	3	10
2	3	?
3	3	36

(A) 13 (B) 15 (C) 19 (D) 17

30.

34	38	9
54	50	13
75	?	15

(A) 55 (B) 45 (C) 35 (D) 25

31.

2	3
7	2

1	1
5	3

2	3
?	5

(A) 10 (B) 9 (C) 11 (D) 12

32.

25	14
13	3

16	8
8	3

15	5
?	5

(A) 6 (B) 2 (C) 3 (D) 4

33.

7	8
7	6

3	7
6	8

5	5
?	11

(A) 9 (B) 7 (C) 6 (D) 8

34.

1	2
36	3

1	2
16	1

1	1
?	1

(A) 20 (B) 12 (C) 9 (D) 16

35.

7	8
14	4

12	15
20	9

18	24
?	12

(A) 45 (B) 30 (C) 32 (D) 36

36.

2	1
49	4

7	1
100	2

3	3
?	3

(A)32 (B) 64 (C) 72 (D) 81

37.

7	3
25	5

4	8
36	6

7	8
?	9

(A) 28 (B) 30 (C) 32 (D) 36

38.

8	11
16	3

16	17
30	3

21	23
?	9

(A) 35 (B) 40 (C) 15 (D) 25

39.

1	1
27	1

2	1
125	2

1	0
?	1

(A) 27 (B) 8 (C) 6 (D) 10

40.

3	2
3	4

6	7
4	3

5	11
?	9

(A) 12 (B) 4 (C) 5 (D) 6

PREVIOUS YEAR NTSE QUESTIONS

41.

41	7	35
24	16	?
36	5	45

(A) 52 (B) 56 (C) 96 (D) 64

42.

38	44	42
23	55	28
37	?	19

(A) 33 (B) 66 (C) 45 (D) 77

43.

?	13	49
9	17	69
13	11	59

(A) 9 (B) 5 (C) 10 (D) 11

44.

4	9	20
8	5	14
10	3	?

(A) 8 (B) 11 (C) 14 (D) 15

45.

37	33	43
61	24	29
57	?	13

(A) 17 (B) 19 (C) 35 (D) 38

46.

78	15	69
92	12	70
66	17	?

(A) 48 (B) 57 (C) 67 (D) 82

47.

1	5	7	75
8	3	4	?
9	7	8	194

(A) 20 (B)43 (C) 89 (D) 96

48.

33	44	76
23	54	66
43	?	86
13	34	56

(A) 94 (B) 84 (C) 74 (D)64

49.

2	1	6
3	7	?
4	8	2
24	56	48

(A) 4 (B) 3 (C) 2 (D) 5

50.

4	5	6
2	3	7
1	8	3
21	98	?

(A) 94 (B) 76 (C) 73 (D) 16

CHAPTER

11

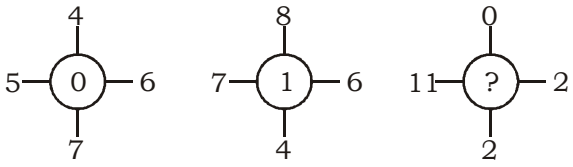
Inserting Missing Character – Magic Circle

Magic Circle

In such types of questions a figure or a circle is given in which some numbers are filled according to a rule. A place is left blank. The candidate has to find out a number from the given possible answers which may be filled in the blank space.

Example

1. Which number will replace the question mark?



(A) 0 (B) 2 (C) 11 (D) 12

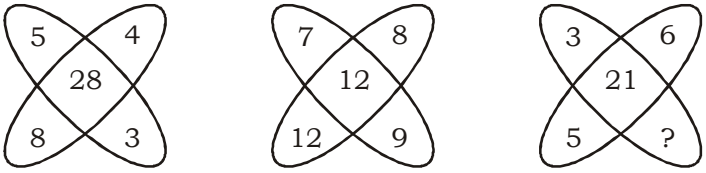
Solution

(C) [(6+5)–(7+4)] =0

(7+6)–(8+4) =1

(11+2)–(2+0) =11

2. Which number will replace the question mark?



(a) (b) (c)

(A) 6 (B) –1 (C) 10 (D) 15

Solution

(B) From figure (a) (8×5)–(4×3) = 28

From figure (b) (12×7)–(8×9) = 12

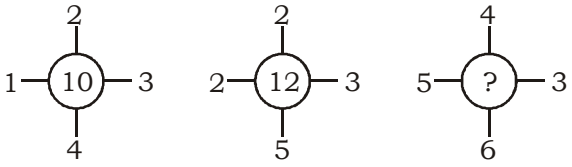
Similarly from figure (c) (5×3)–(6×x) = 21

15–6x=21

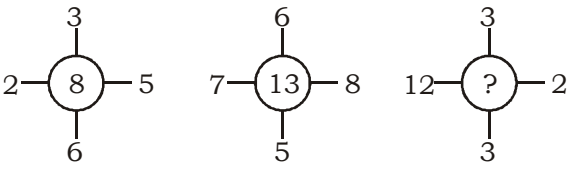
x = –1

Hence the question mark will be replaced by –1.

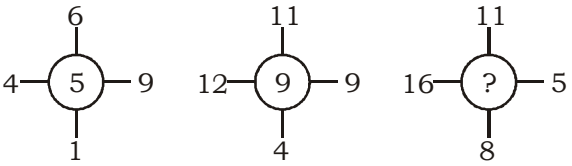
ASSIGNMENT-1

1. 

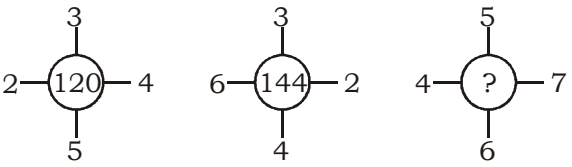
(A) 18 (B) 16 (C) 15 (D) 21

2. 

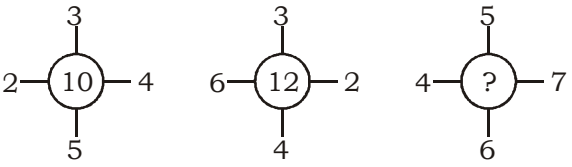
(A) 9 (B) 10 (C) 12 (D) 13

3. 

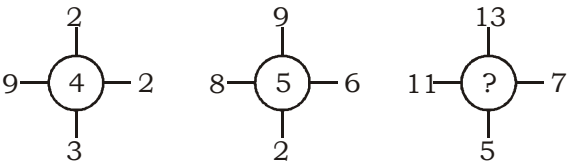
(A) 9 (B) 13 (C) 10 (D) 12

4. 

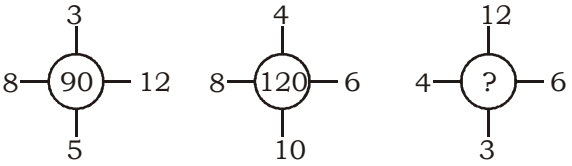
(A) 760 (B) 820 (C) 720 (D) 840

5. 

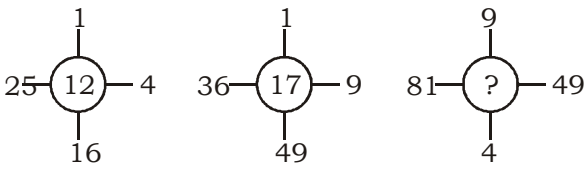
(A) 40 (B) 50 (C) 70 (D) 60

6. 

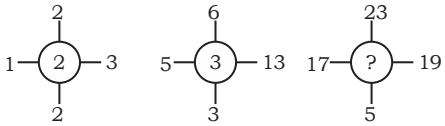
(A) 3 (B) 6 (C) 7 (D) 8

7. 

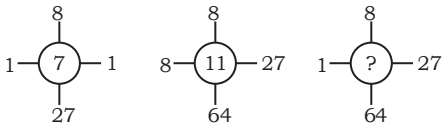
(A) 54 (B) 48 (C) 52 (D) 56

8. 

(A) 18 (B) 19 (C) 20 (D) 21

9. 

(A) 4 (B) 1 (C) 5 (D) 6

10. 

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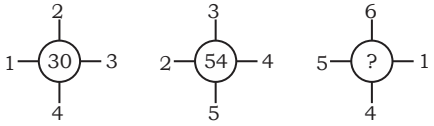
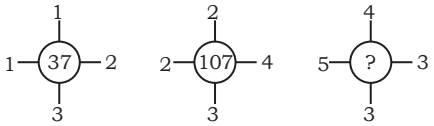
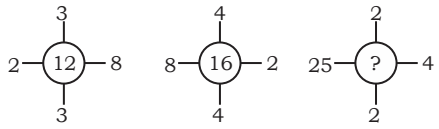
11. 

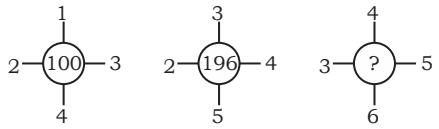
(A) 72 (B) 74 (C) 75 (D) 78

12. 

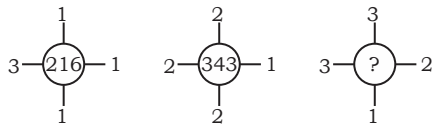
(A) 243 (B) 221 (C) 227 (D) 229

13. 

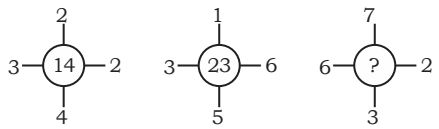
(A) 30 (B) 25 (C) 20 (D) 21

14. 

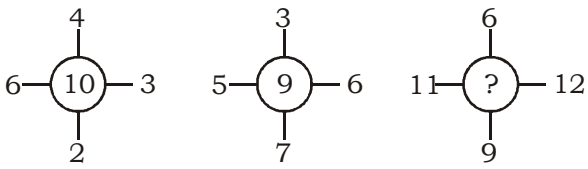
(A) 225 (B) 324 (C) 400 (D) 289

15. 

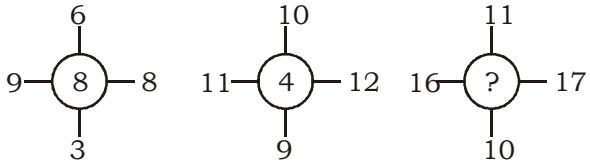
(A) 729 (B) 512 (C) 125 (D) 216

16. 

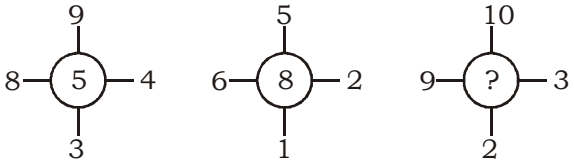
(A) 42 (B) 38 (C) 32 (D) 33

17. 

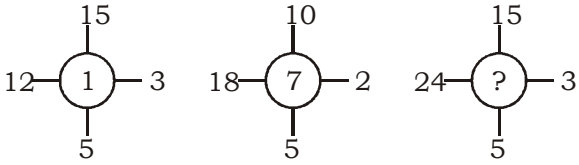
(A) 78 (B) 76 (C) 82 (D) 85

18. 

(A) 16 (B) 15 (C) 12 (D) 14

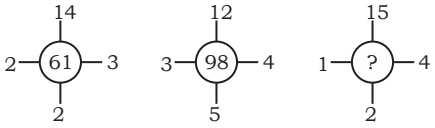
19. 

(A) 8 (B) 7 (C) 6 (D) 9

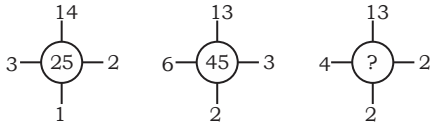
20. 

(A) 8 (B) 6 (C) 5 (D) 9

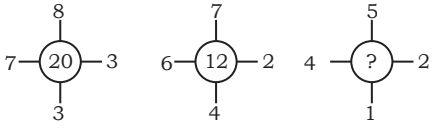
ASSIGNMENT-2

21. 

(A) 82 (B) 74 (C) 76 (D) 78

22. 

(A) 36 (B) 32 (C) 28 (D) 30

23. 

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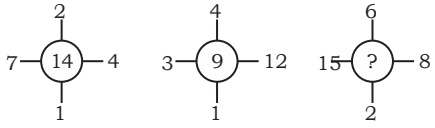
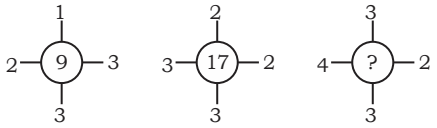
24. 

(A) 16 (B) 10 (C) 12 (D) 15

25. 

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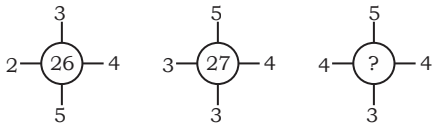
26. 

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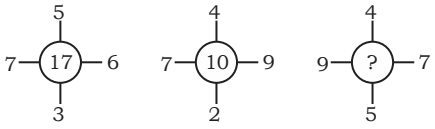
27. 

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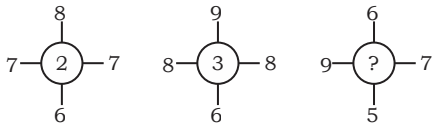
28. 

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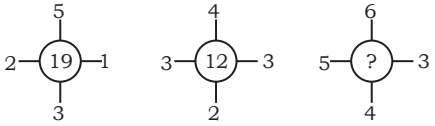
29. 

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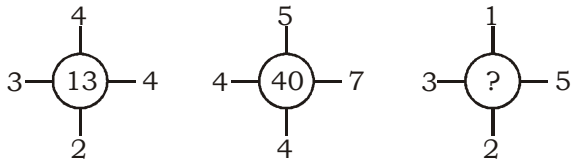
30. 

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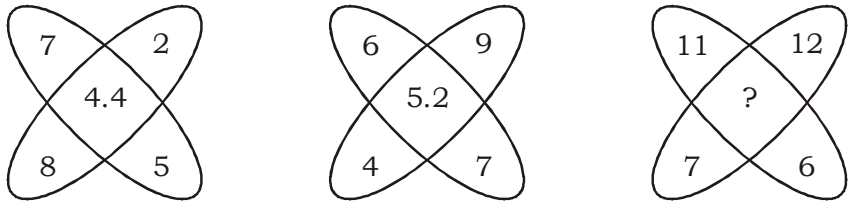
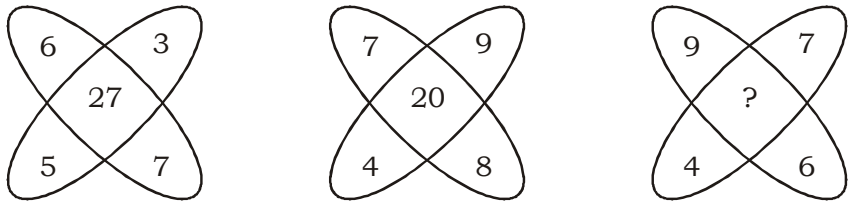
31. 

(A) 7 (B) 7.5 (C) 7.2 (D) 7.4

32. 

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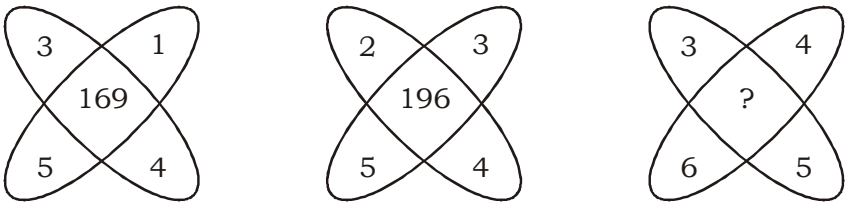
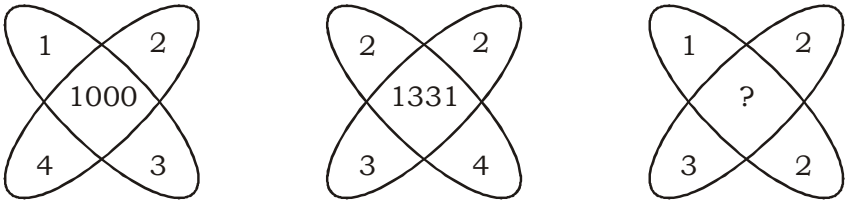
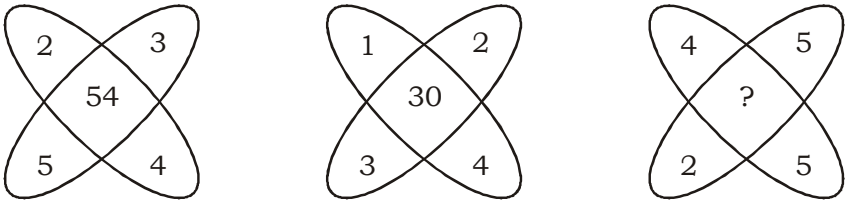
33. 

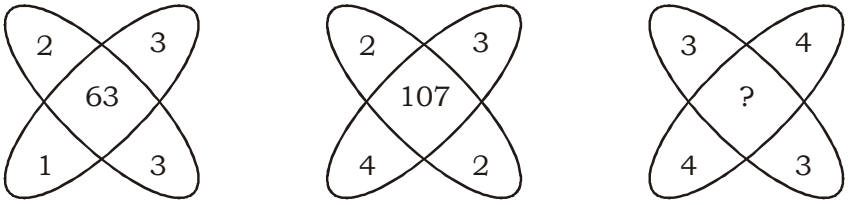
(A) 324 (B) 225 (C) 256 (D) 289

34. 

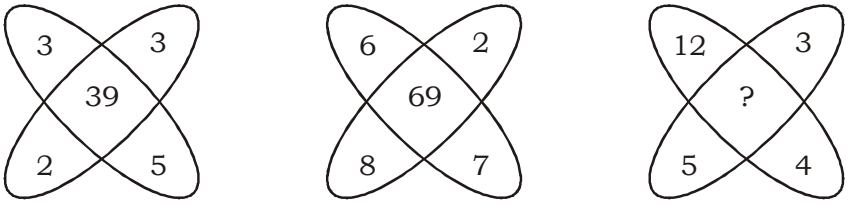
(A) 400 (B) 343 (C) 500 (D) 512

35. 

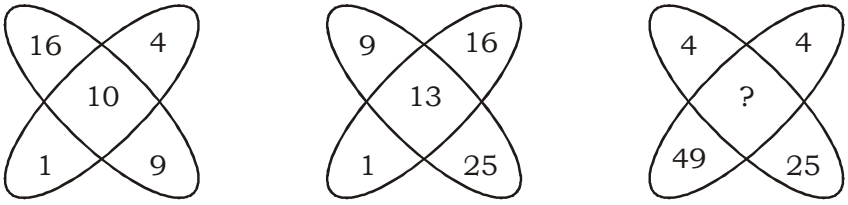
(A) 100 (B) 70 (C) 80 (D) 90

36. 

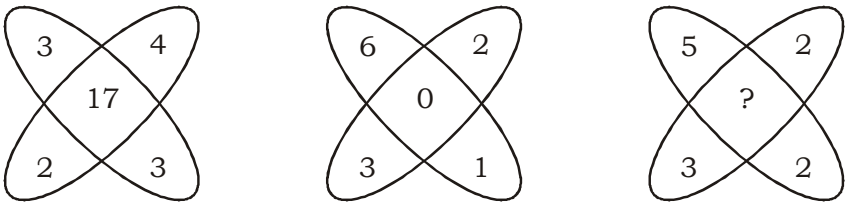
(A) 154 (B) 160 (C) 182 (D) 184

37. 

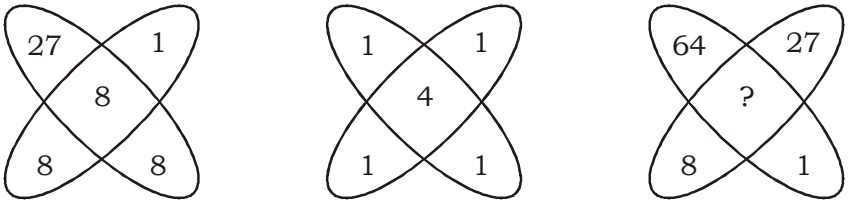
(A) 108 (B) 216 (C) 192 (D) 212

38. 

(A) 16 (B) 14 (C) 18 (D) 21

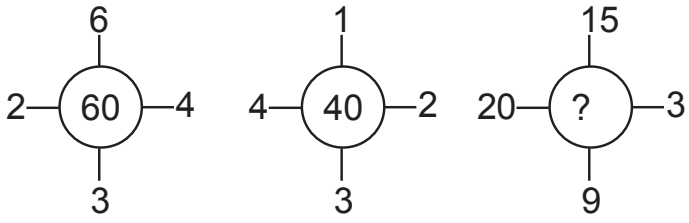
39. 

(A) 60 (B) 64 (C) 92 (D) 68

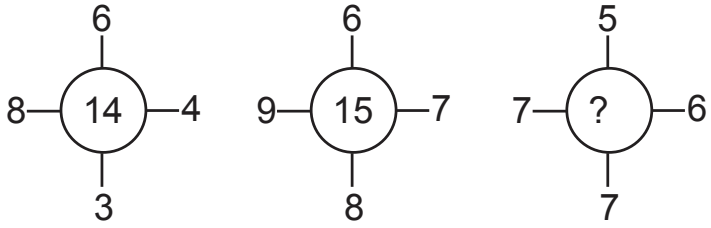
40. 

(A) 10 (B) 11 (C) 12 (D) 15

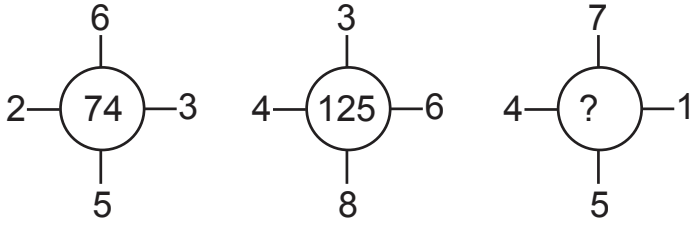
PREVIOUS YEAR NTSE QUESTIONS

41. 

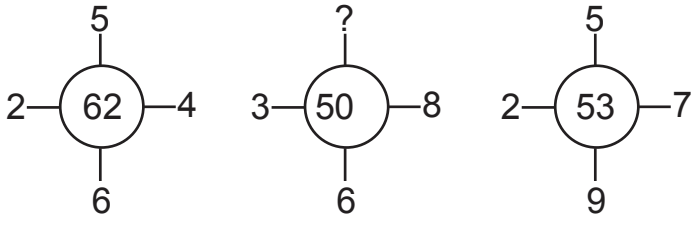
(A) 235 (B) 141 (C) 144 (D) 188

42. 

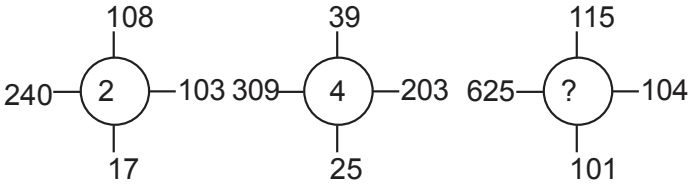
(A) 7 (B) 9 (C) 11 (D) 13

43. 

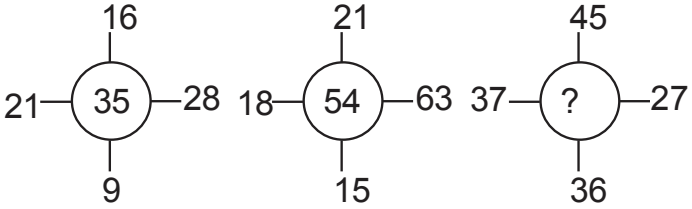
(A) 94 (B) 91 (C) 86 (D) 90

44. 

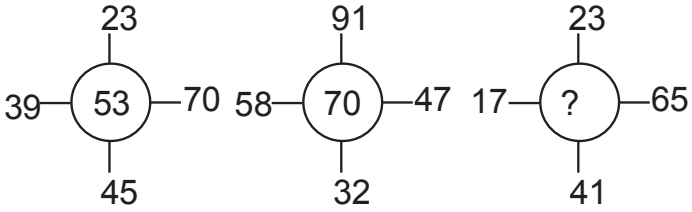
(A) 4 (B) 3 (C) 5 (D) 7

45. 

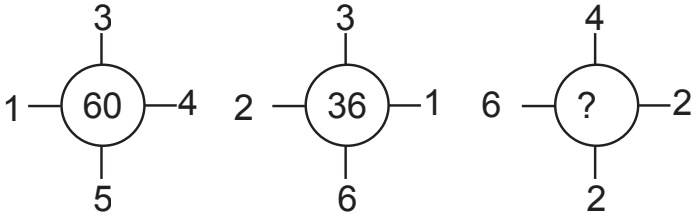
(A) 8 (B) 5 (C) 7 (D) 3

46. 

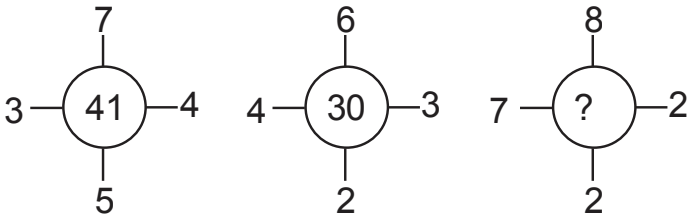
(A) 42 (B) 56 (C) 64 (D) 72

47. 

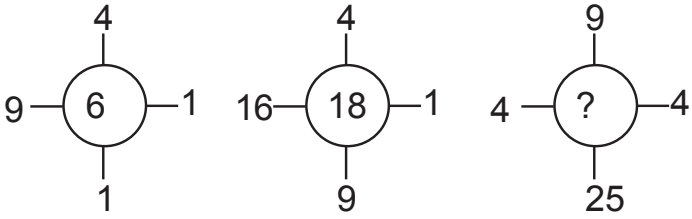
(A) 61 (B) 63 (C) 66 (D) 68

48. 

(A) 96 (B) 108 (C) 116 (D) 124

49. 

(A) 50 (B) 60 (C) 70 (D) 80

50. 

(A) 60 (B) 72 (C) 84 (D) 112

CHAPTER

12

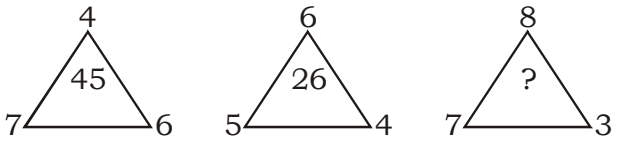
Inserting Missing Character – Inserting Number

Inserting Number

In such types of questions a figure or a triangle is given in which some numbers are filled according to a rule. A place is left blank. The candidate has to find out a number from the given possible answers which may be filled in the blank space.

Example

1. Which number will replace the question mark?



(A) 24 (B) 29 (C) 22 (D) 32

Solution

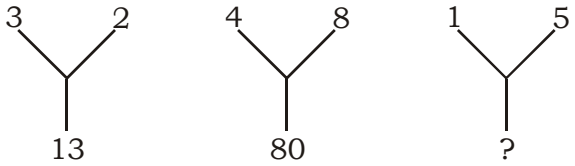
(B) From First Triangle : 7×6+3 = 45

From second Triangle : 5×4+6 = 26

Similarly From third triangle : 7×3+8 = 29

Hence the question mark will be replaced by 29

2. Which number will replace the question mark?



(A) 10 (B) 12 (C) 26 (D) 17

Solution

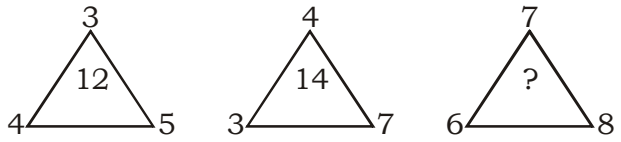
(C) From figure (a) : $(3)^2 + (2)^2 = 13$

From figure (b) : $(4)^2 + (8)^2 = 80$

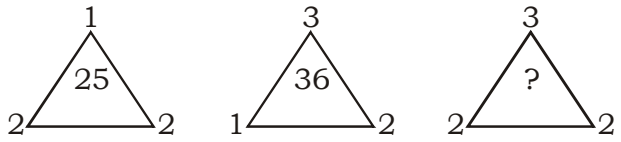
Similarly from figure (c) : $? = (1)^2 + (5)^2 = 26$

Hence the number 26 will replace the question mark.

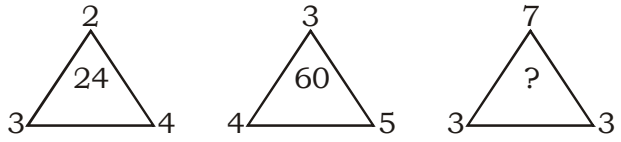
ASSIGNMENT - 1

1. 

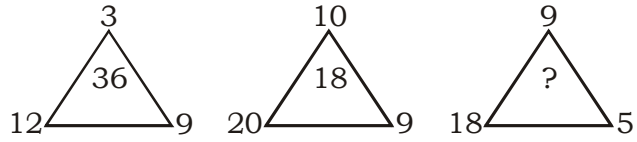
(A) 17 (B) 20 (C) 19 (D) 21

2. 

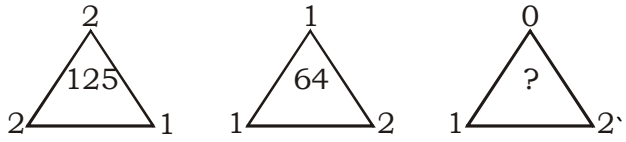
(A) 53 (B) 42 (C) 49 (D) 48

3. 

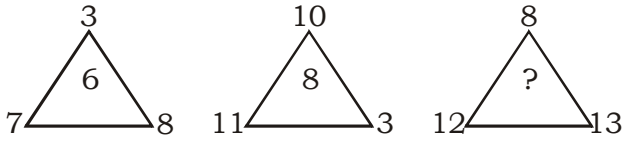
(A) 72 (B) 63 (C) 60 (D) 5

4. 

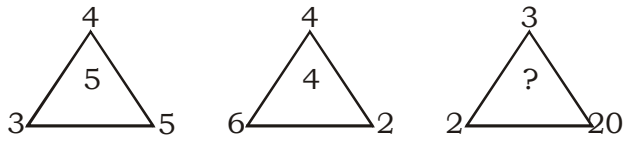
(A) 10 (B) 9 (C) 12 (D) 16

5. 

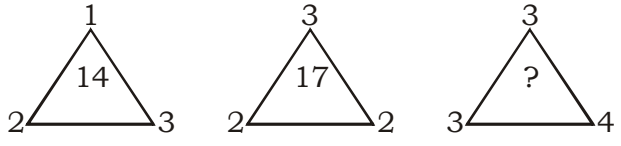
(A) 27 (B) 30 (C) 36 (D) 64

6. 

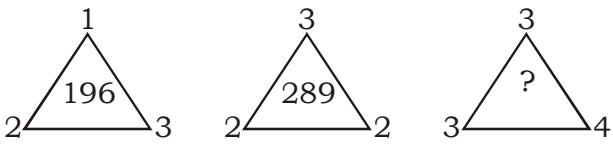
(A) 16 (B) 9 (C) 11 (D) 12

7. 

(A) 16 (B) 10 (C) 9 (D) 15

8. 

(A) 34 (B) 35 (C) 36 (D) 38

9. 

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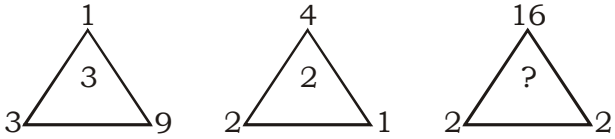
10. 

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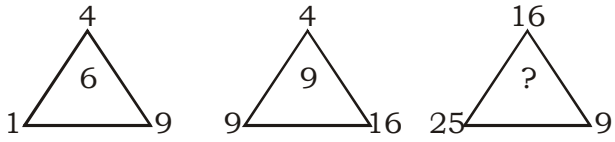
11. 

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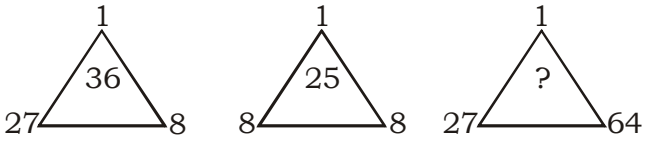
12. 

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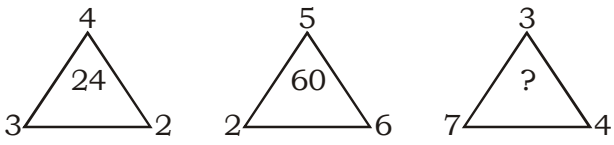
13. 

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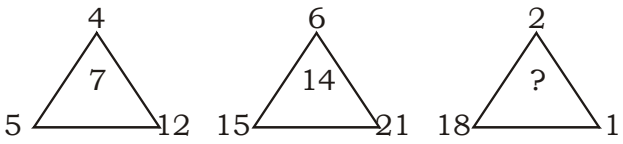
14. 

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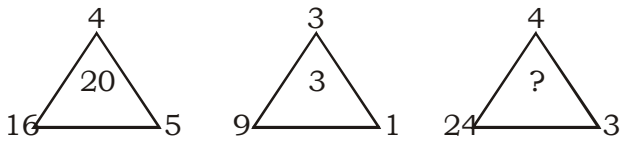
15. 

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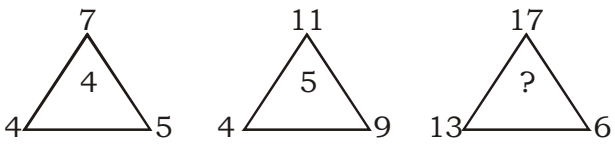
16. 

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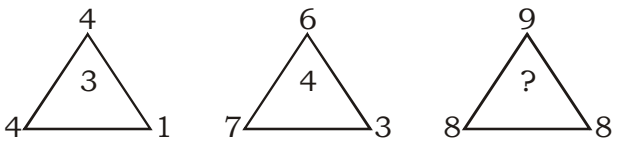
17. 

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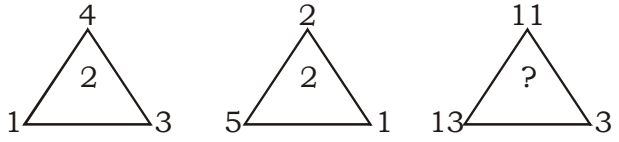
18. 

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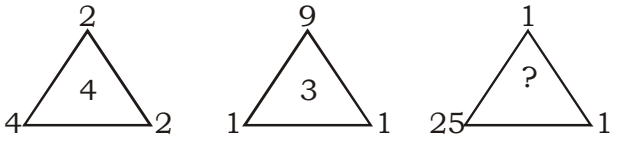
19. 

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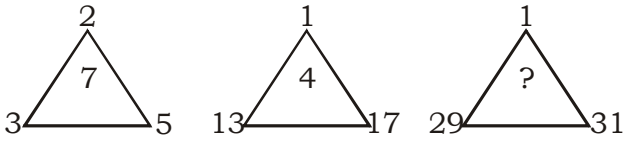
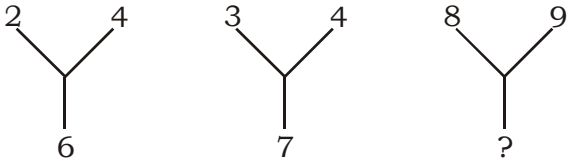
20. 

(A) 1 (B) 2 (C) 3 (D) 4

ASSIGNMENT - 2

21. 

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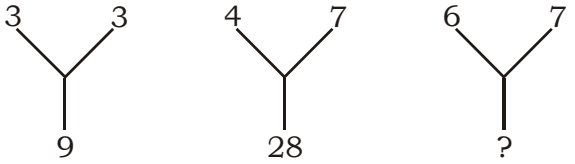
22. 

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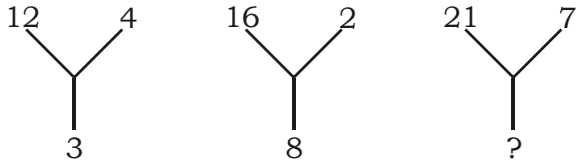
23. 

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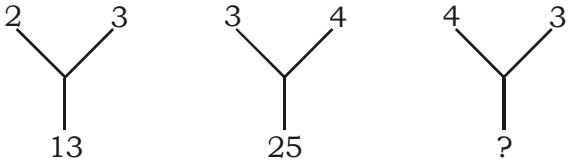
24. 

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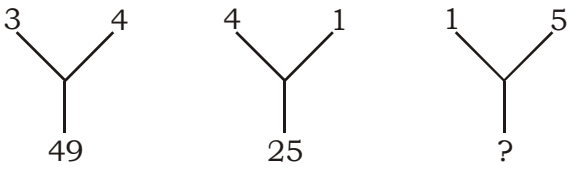
25. 

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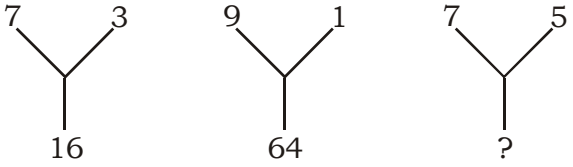
26. 

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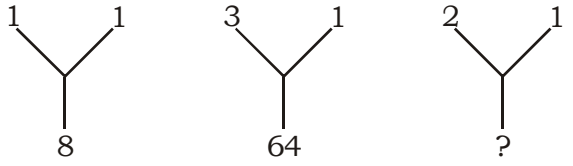
27. 

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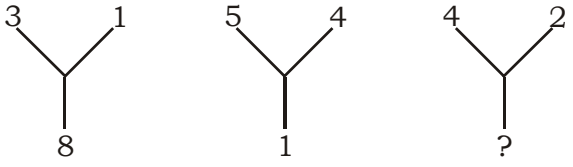
28. 

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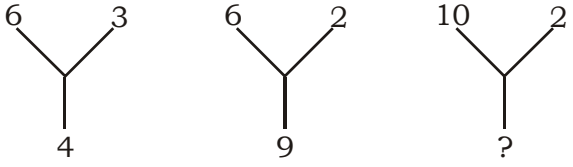
29. 

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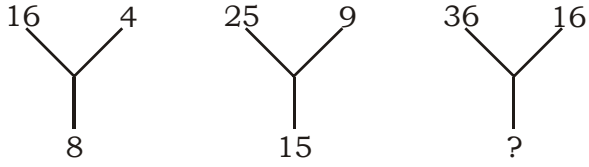
30. 

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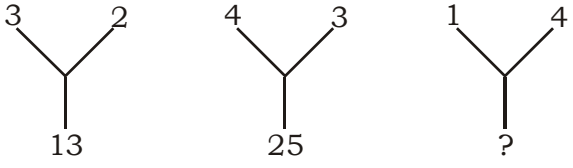
31. 

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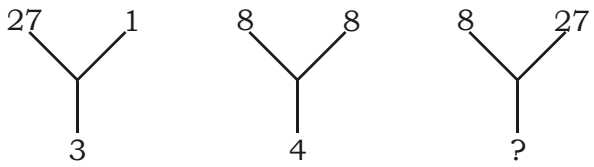
32. 

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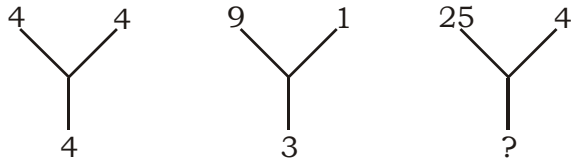
33. 

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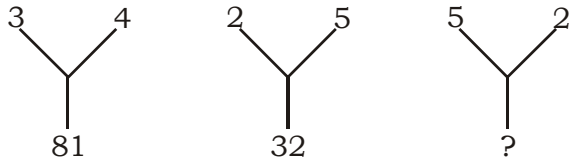
34. 

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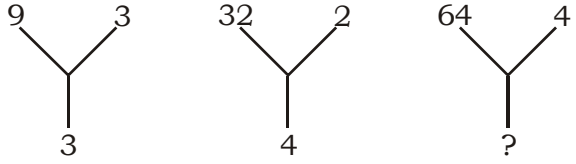
35. 

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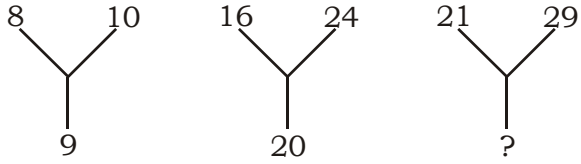
36. 

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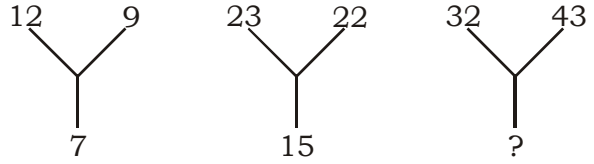
37. 

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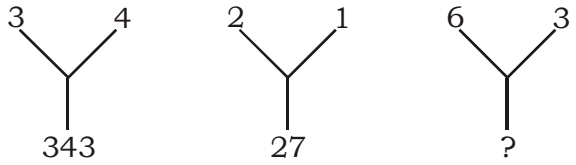
38. 

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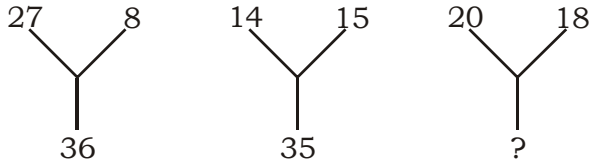
39. 

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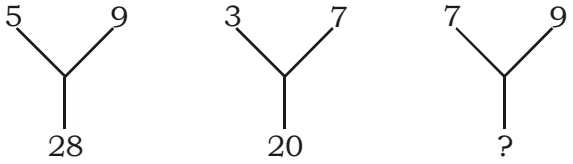
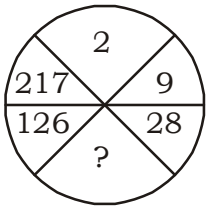
40. 

(A) 32 (B) 34 (C) 36 (D) 38

PREVIOUS YEAR NTSE QUESTIONS

Direction : In each questions numbers are placed in figures on the basis of some rules. One place in the figure is indicated by the interrogation sign (?). Find out the correct alternative to replace the question mark and indicate your answer by filling the circle of the corresponding letter of alternatives in the answer sheet.

41. 

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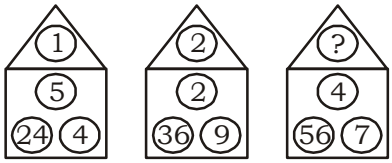
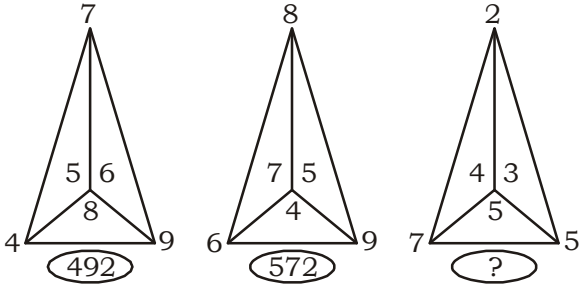
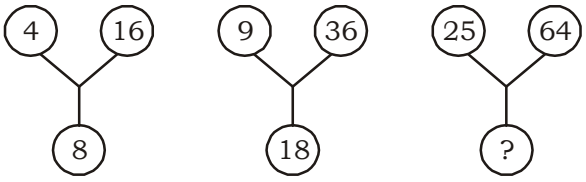
42. 

(A) 2 (B) 3 (C) 4 (D) 5

43. 

(A) 115 (B) 130 (C) 135 (D) 140

44. 

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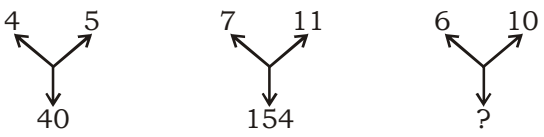
45. 

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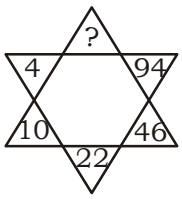
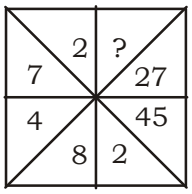
46. 

(A) 194 (B) 188 (C) 190 (D) 192

47. 

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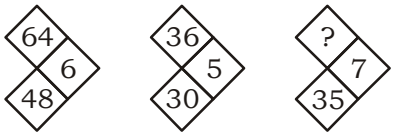
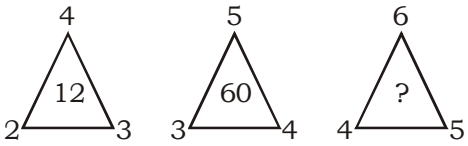
48. 

(A) 36 (B) 25 (C) 49 (D) 18

49. 

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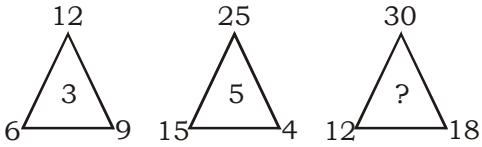
50. 

(A) 8 (B) 2 (C) 6 (D) 15

CHAPTER

13 Venn Diagram

Venn Diagram

Logical Venn diagrams represent logical relationships among different items. The items are represented by circles or any other geometrical figures. The size and shape of the diagrams have no relevance to the quantity or nature of the items they represent. The diagrams represent only logical relations among the items.

To start with, we shall analyze how the relation between two items can be represented using logical Venn diagrams.

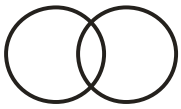
There can be only three types of relationships between any two different items. The diagrammatic representation of such relationships is given below.

(A) The below diagram indicates that one item is completely contained in the other item, but not vice-versa.

Example : Fruits, mangoes

Fruits are represented by the outer circle, and mangoes are represented by the inner circle.

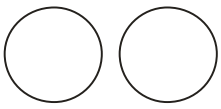
(B) This diagram indicates that neither item is completely contained in the other item, but the two items have some portion in common.



Example : Teachers, poets.

Some teachers may be poets, but all the teachers are not poets. Likewise, some but not all poets may be teachers. The common portion in both the circles represents the teachers circles represents the teachers who are also poets.

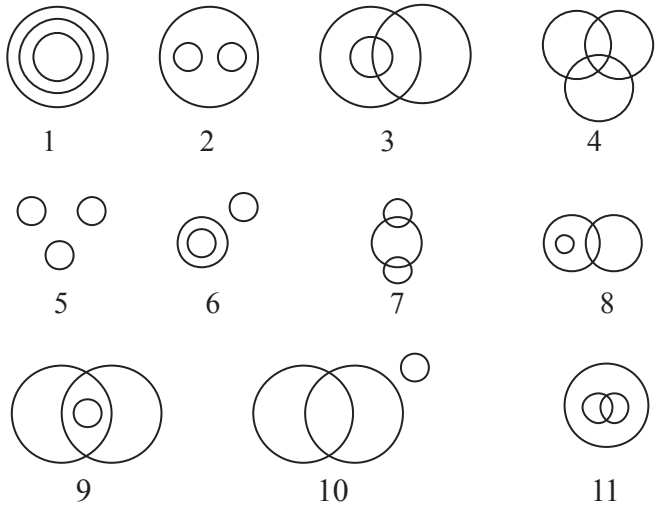
(C) This diagram indicates that nothing is common between the two items represented by the circles.



Example : Boy's girls.

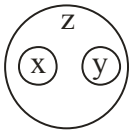
Since the two items are entirely different from each other, the circles representing the items do not intersect.

The logical relation among three items is represented by any one of the following Venn diagrams.



Normally, in the problems on Venn diagrams, a set of Venn diagrams is given followed by a set of three items each. Students are required to choose the appropriate diagram which illustrates the relationship among the three given items. All eleven types of representations are discussed in this chapter, by taking two examples of each type.

(i) One item contains the other two items which are different from each other.

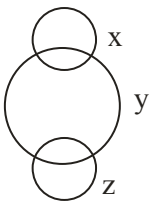


Example :

Parrot, dove, birds

It is clear that parrot (X) and dove (Y) are separate items and both are birds (Z).

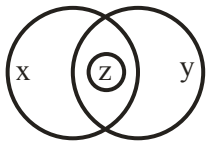
(ii) Two independent items sharing some common feature with the third item.



Example :
Boys. Girls, educated

It is obvious that only some boys are educated, some girls are educated, and no boy is a girl and vice-versa. X represents boys, Y represents educated and Z represents girls.

(iii) One item is partially contained in the other and the third item is fully contained in both.

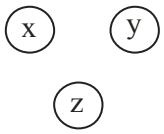


Example :

Furniture, wooden materials, wooden chair

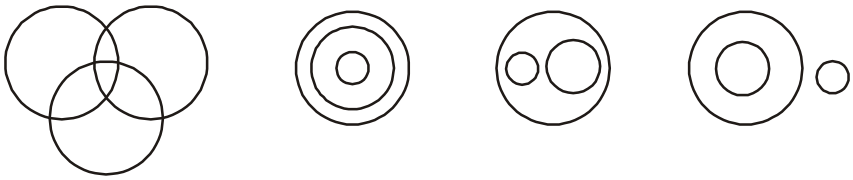
Furniture, wooden materials, and wooden chair are represented by the circles X, Y, and Z, respectively. Some of the furniture is made of wood. So, the circles X and Y intersect with each other. The wooden chair is a piece of furniture as well as a wooden material. So, the circle Z lies inside both the circles X and Y.

(iv) Independent items,



ASSIGNMENT-1

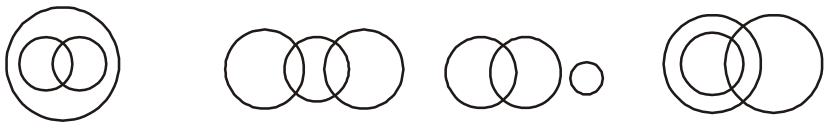
Directions (1-5) : In each of the following questions three words (elements) related, in some way. Find the diagram (A, B, C, D) in which these elements fit correctly



(A) (B) (C) (D)

1. Mercury, Zinc, Metal
2. Teacher, Writer, Musician
3. Sailor, Ship, ocean
4. Elephant, Carnivorous, Tiger
5. Earth, Jupiter, Solar System

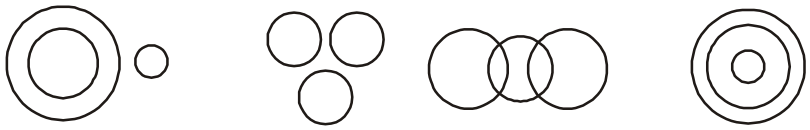
Directions (6-10) : In each of the following questions three words (elements) related, in some way. Find the diagram (A, B, C, D) in which these elements fit correctly



(A) (B) (C) (D)

6. Women, Mother, Engineers
7. Subjects, Maths, Physics
8. Horse, Black, Water
9. Mother, Female, Politician
10. Men, Women, Fast runners

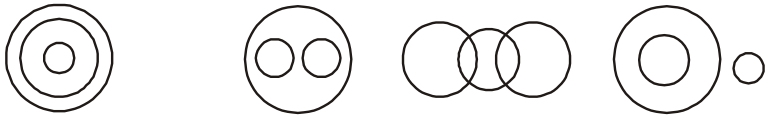
Directions (11-15) : In each of the following questions three words (elements) related, in some way. Find the diagram (A, B, C, D) in which these elements fit correctly



(A) (B) (C) (D)

11. Sweets, Ragulla, Apple
12. Page, Chapter, Book
13. Author, Lawyer, Singer
14. Bulb, Lamp, Light
15. Trouser, Cotton, Shirt

Directions (16-20): In each of the following questions three words (elements) related, in some way. Find the diagram (A, B, C, D) in which these elements fit correctly

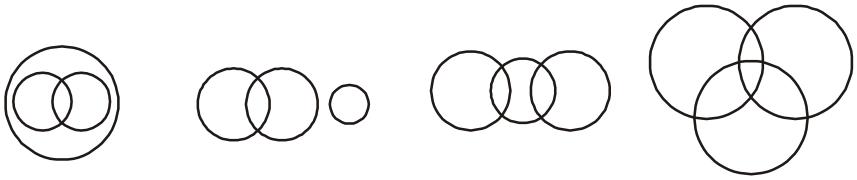


(A) (B) (C) (D)

16. Home, bedroom, bathroom
17. Bus, Car, Vehicle
18. Square, Rectangle, Polygon
19. Table, Chair, Furniture
20. Smokers, Non smokers, Lawyers

ASSIGNMENT-2

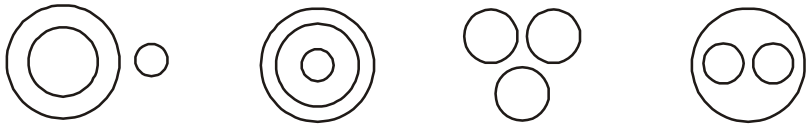
Directions (21-25) : In each of the following questions three words (elements) related, in some way. Find the diagram (A, B, C, D) in which these elements fit correctly



(A) (B) (C) (D)

21. Asian, Tall, Plastic
22. Tennis Fans, Cricket player, Student
23. Thief, Gangster, Murderers
24. Physics, Chemistry, Grass
25. Cloth, White, Feathers

Directions (25-30) : In each of the following questions three words (elements) related, in some way. Find the diagram (A, B, C, D) in which these elements fit correctly

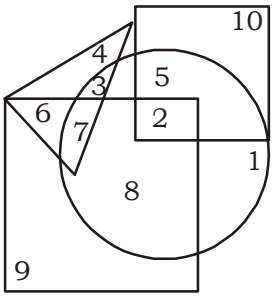


(A) (B) (C) (D)

26. Flowers, Marigold, Rose
27. India, China, Britain
28. Natural numbers, Even numbers, Odd numbers

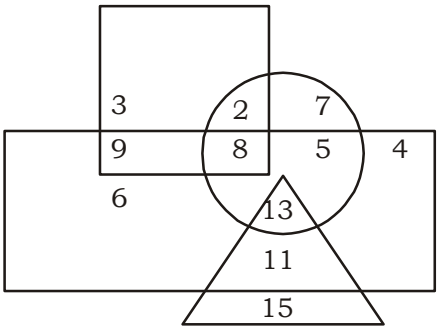
29. Bangles, Cold drinks, Coca-cola
30. Family, Daughter, Son

Direction (31-35): *In the following figure small square represents the persons who know English, triangles who know Marathi, big square who know Telugu and circle who know Hindi. Study the diagram given below and answer each other following questions*



31. How many persons can speak English and Hindi both?
(A) 5 (B) 8 (C) 7 (D) 1
32. How many persons can speak Marathi and Hindi both?
(A) 9 (B) 4 (C) 3 (D) None of these
33. How many persons can speak only English?
(A) 9 (B) 10 (C) 7 (D) 8
34. How many persons can speak English, Hindi and Telugu?
(A) 8 (B) 2 (C) 7 (D) None of these
35. How many persons can speak all the language?
(A) 1 (B) 8 (C) 2 (D) None of these

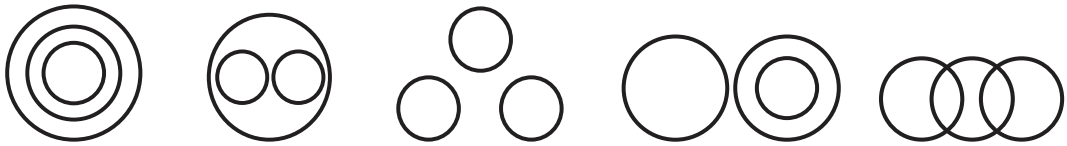
Direction (36-40): *Observe the diagram carefully and then answer the following questions. Here rectangle represents males, Triangle represents PhD, Circle represents Urban and Square represents civil servants.*



36. How many urban male civil servants are there?
(A) 8 (B) 26 (C) 11 (D) 39
37. How many female PhD are there?
(A) 39 (B) 11 (C) 15 (D) 26
38. How many urban male PhD civil servants are there?
(A) 10 (B) 8 (C) 13 (D) None of these
39. How many urban female civil servants are there?
(A) 3 (B) 2 (C) 7 (D) 15
40. How many urban male PhD are there?
(A) 15 (B) 13 (C) 39 (D) None of these

COMPETITIVE CORNER

Direction (41 to 43) : The questions represents certain relationship. The same relationship has been represented by the figures A, B, C, D and E but not in the same order. You have to choose the right choice



(A) (B) (C) (D) (E)

41. hospital : bed : patient

(A) B (B) A (C)C (D)D

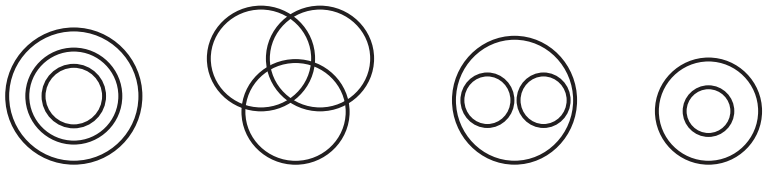
42. suitcase : shirts : trousers

(A) B (B) E (C) D (D) C

43. light : dusk : dark

(A) C (B) A (C) E (D) D

Direction (44 to 46) : The following diagrams show some relationship among 3 items. For each group of elements there corresponding one diagram is (a), (b), (c) or (d)



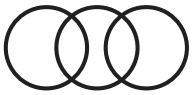
(1) (2) (3) (4)

44. Square, rhombus, polygons ***(NTSE 2016)***

(A) 2 (B) 1 (C) 3 (D) 4

45. Vegetable, potato, apple ***(NTSE 2016)***

(A) 1 (B) 2 (C) 3 (D) 4

46. The three items satisfy the diagrams are:  ***(NTSE 2016)***

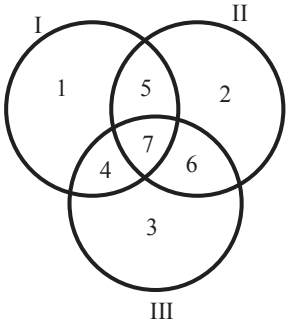
(A) Engineers, Sportspersons, Judges (B) Carrot, Vegetable, Food

(C) Flowers, Fruits, Liquid (D) Birds, Animals, Human beings

Direction (47 to 50) : In the following diagram, the three intersecting circles, each representing certain section of people. Different regions are marked as 1 to 7. Read the statements in questions and choose number of the region which correctly represents the statement.

Circle I represents Indians II represent Sportspersons

III represents Graduates



47. Indian graduates who are not sportspersons

(A) 6 (B) 4 (C) 7 (D) 5

48. Graduate sportsperson who are no Indians

(A) 5 (B) 7 (C) 6 (D) 4

49. Indian graduate sportspersons

(A) 7 (B) 4 (C) 5 (D) 6

50. The region 5 represents:

(A) Graduate sportspersons who are not Indians

(B) Indian sportspersons who are not graduates

(C) India Graduates who are not sports persons

(D) None of these

CHAPTER

14 Blood Relation

Blood Relation

The questions which are asked under this chapter, depend upon Relation. Hence, it is necessary for the candidate to have a sound knowledge of the blood relation. To remember easily the relations may be divided into two sides – Paternal side and Maternal side.

Relations of Paternal side :		**Relations of Maternal side :**	
(A)	Father's father – Grandfather	(A)	Mother's father – Maternal Grandfather
(B)	Father's mother – Grandmother	(B)	Mother's mother – Maternal Grandmother
(C)	Father's brother – Uncle	(C)	Mother's brother – Maternal Uncle
(D)	Father's sister – Aunt	(D)	Mother's sister – Maternal Aunt
(E)	Children of uncle – Cousin	(E)	Children of maternal uncle – Cousin
(F)	Wife of uncle – Aunt	(F)	Wife of maternal uncle – Maternal Aunt
(G)	Children of aunt – Cousin		
(H)	Husband of aunt – Uncle		

Examples

1. Sarita introduced a boy as the son of the daughter of the father of her uncle. The boy is Sarita's _____

   (A) Brother (B) Son (C) Uncle (D) Son-in law

Solution

(A) Usually we start from the end and keep on simplifying: Daughter of uncle's father means uncle's sister. Uncle's sister means mother and son of the mother means her brother. So the boy is Sarita's brother.

2. A+B means 'A' is the brother of B, A–B means A is the mother of B and A×B means A is the sister of B. Which of the following means A is the maternal uncle of B?

   (A) A+C+B (B) A–B+C (C) A+C–B (D) A+C×B

Solution

(C) Note that C has a relation between A and B. Option (A) A+C+B implies that A is the brother of C who is the brother of B means that A is the brother of B. So (A) does not give what is asked.
Option (B) also does not say what is required.
Option (C) A+C–B means A is the brother of C who is the mother of B means that A is the maternal uncle of B.
Hence the answer is (C)

ASSIGNMENT-1

Directions (1 to 6) : Read the following information carefully and answer the questions given below

1. Pointing to a girl in the photograph, Ramesh said "Her mother's brother is the only son of my mother's father." How is the girl's mother related to Ramesh?

   (A) Mother (B) Sister (C) Aunt (D) Grandmother

2. Pointing to a man in a photograph, Anita said "His brother's father is the only son of my grandfather." How is the Anita related to the man in the photograph?

   (A) Mother (B) Aunt (C) Sister (D) Daughter

3. Pointing to his son's portrait, a man said to a woman, "His mother is the only daughter of your mother." How was the woman related to the man?

   (A) Sister (B) Mother (C) Wife (D) Daughter

4. Introducing a man, a woman said, "His wife is the only daughter of my father." How that man was related to the woman?

   (A) Brother (B) Father in law

   (C) Maternal uncle (D) Husband

5. If Anil is the brother of the son of Sunil's son, what is the relationship between Anil and Sunil?

   (A) Cousin (B) Brother (C) Nephew (D) Grandson

6. Pointing to a person, a man said to a woman, "His mother is the only daughter of your father. How was the woman related to the person?

   (A) Sister (B) Mother (C) Wife (D) Daughter

Directions (7 to 9) : A, B, C, D, E and F are related each other as given here. B is F's daughter in law. D is A's only grand child. C is D's only uncle. A has two children F and C, one male and one female (not necessarily in the same order). E is the father of C.

7. Who is the grandmother of D?

   (A) B (B) A (C) C (D) D

8. Who is the mother-in-law of B?

   (A) C (B) D (C) E (D) F

9. If a girl G is married into the family, what is the relationship between G and D?

   (A) Mother (B) Aunt (C) Mother-in-law (D) Grand mother

Directions (10 to 15) : Read the following information carefully and answer the questions given below it: A family consists of six members P, Q, R, X, Y and Z. Q is the son of R but R is not mother of Q. P and R are a married couple. Y is the brother of R. X is the daughter of P. Z is the brother of P.

10. Who is the brother in law of R?

    (A) P (B) Z (C) Y (D) X

11. Who is the father of Q?

    (A) R (B) P (C) Z (D) None of these

12. How many children does P have ?

    (A) One (B) Two (C) Three (D) Four

13. How many female members are there in the family?

    (A) One (B) Two (C) Three (D) Four

14. How is Q related to X?

    (A) Husband (B) Father (C) Brother (D) Uncle

15. Which is a pair of brother?

(A) P and X (B) P and Z (C) Q and X (D) R and Y

16. Aakash said to Mohit, "That boy in blue shirt is younger of the two brothers of the daughter of my father's wife". How is the boy in blue shirt related to Aakash".

(A) Father (B) Uncle (C) Brother (D) Nephew

17. Pointing to a person, Rohit said to Neha, "His mother is the only daughter of your father." How is Neha related to that person?

(A) Aunt (B) Mother (C) Daughter (D) Wife

18. 'P+Q' means P is the brother of Q, P–Q means P is the mother of Q and P×Q means P is the sister of Q. Which of the following means that M is the maternal uncle of R?

(A) M–R+K (B) M+K–R (C) M+K×Q (D) None of these

19. A+B means A is the son of B, A–B means A is the wife of B. A×B means A is the brother of B, A÷B means A is the mother of B, A = B means A is the sister of B. Which of the following represents P is the maternal uncle of Q?

(A) R+P÷Q (B) P×R÷Q (C) P+R÷Q (D) P+R×Q

20. Amit said, "This girl is the wife of the grandson of my mother." How is Amit related to the girl?

(A) Father (B) Father in Law

(C) Grandfather (D) Husband

ASSIGNMENT-2

21. Raj said to Rohan, "That boy playing with the football is the younger of the two brothers of the daughter of my father's wife." How is the boy playing football related to Raj?

(A) Son (B) Brother (C) Cousin (D) Brother in law

22. Pointing a photograph X said to his friend U, "She is the only daughter of the father of my mother." How X is related to the person in the photograph?

(A) Daughter (B) Son

(C) Nephew (D) Cannot be determined

23. Maya who is the sister in law of Ashok, is the daughter in law of Kritika. Neeraj is the father of Amit who is the only brother of Ashok. How Kritika is related to Ashok?

(A) Mother-in-law (B) Aunt (C) Wife (D) None of these

24. If A + B means A is the sister of B; A ×B means A is wife of B, A % B means A is the father of B and A –B means A is the brother of B. Which of the following means T is the daughter of P?

(A) P×Q%R+S–T (B) P×Q%R–T+S (C) P×Q%R+T–S (D) P×Q%R+S+T

25. Pointing to a woman, Amit said, "Her granddaughter is the only daughter of my brother." How is the woman related to Amit?

(A) Sister (B) Grandmother

(C)Mother in law (D) Mother

26. Vipul said "This girl is the wife of the grandson of my mother." How is Vipul related to the girl?

(A) Brother (B) Grandfather

(C) Husband (D) Father-in-law

27. Bharat mother say to Bharat, my mother has a son whose son is Amar. How is Amar related to Bharat?

(A) Cousin (B) Father (C) Brother (D) Grandfather

28. Pointing towards Ashish, Gauri said, "His mother is the only daughter of my mother." How is Gauri related to Ashish?

(A) Mother (B) Grandmother

(C) Sister (D) Daughter

29. If P $ Q means P is the brother of Q; P # Q means P is the mother of Q; P * Q means P is the daughter of Q, in A # B $ C * D, who is the father?

(A) D (B) B (C) C (D) Data is inadequate

30. Introducing Rajni, Dhawal says, "She is the wife of only nephew of the only brother of my mother." How Rajni is related to Dhawal?

(A) Wife (B) Sister (C) Sister in law (D) Data is inadequate

Direction (31 to 35): Read the following given below and answer the question that follows:

(i) P is the mother of I. But I is not her daughter.

(ii) F is the son of I. L is the spouse of P.

(iii) M is the sister of I. O is the daughter of M.

(iv) N is the spouse of M. K is the mother of N

31. Who is the grandfather of O?

(A) K (B) L (C) I (D) F

32. Who is the daughter of L?

(A) L (B) I (C) N (D) M

33. How is F related to M?

(A) Brother (B) Husband (C) Nephew (D) Father

34. Who is K to M?

(A) Sister (B) Daughter (C) Mother in law (D) Father

35. If I is P's mother's niece and O is P's cousin but not sister of I, how is O related to I?

(A) Sister (B) Brother (C) Cousin (D) Granddaughter

Direction (36 to 40) : Read the information given below and answer the questions that follows:

In a family, there are six members L, M, N, O, P, and Q. L and M is married couple, L being a female member. O is the daughter of N, who is the sister of L. P is the brother of O. M is the son-in-law of Q. whose wife has died.

36. Who is the mother?

(A) N (B) P (C) O (D) M

37. Who is M's wife

(A) Q (B) T (C) R (D) L

38. How many male members are there in the group?

(A) One (B) Two (C) Three (D) Four

39. How Q is related to P?

(A) Grandfather (B) Father (C) Cousin (D) Brother

40. Which of the following is a pair of sisters?

(A) ON (B) NL (C) PO (D) QM

PREVIOUS YEAR NTSE QUESTIONS

41. Pointing at photo of female, Ashok said, " Her father's wife is my wife's mother in law. What is the relation as Ashok with that female in photo?

(A) Sister (B) Wife (C) Mother (D) Daughter

42. A is uncle of B, B is daughter of C, C is the wife of D's son. Then how is A related to D?

(A) Son (B) Brother (C) Father (D) Maternal uncle.

43. Sailesh introduces Mahipal as the son of the only brother of his father's wife How is Mahipal related to Sailesh?

(A) Cousin (B) Son (C) Maternal uncle (D) Son-in law

44. Pointing to a lady in the photograph Kaushal said, "She is the daughter of the daughter of the only son of my ground father". How is the lady related to Kaushal

(A) sister (B) Maternal aunt (C) Niece (D) Cousin

45. Pointing to a woman, Abhijit said, "Her grand daughter is the only daughter of my brother." How is the woman related to Abhijit?

(A) Sister (B) Grandmother (C) Mother-in-law (D) Mother

46. Q is a father of P and S is R' s brother. R is the only daughter of her mother M. If S is P's maternal uncle, how are Q and R related?

(A) Father and Daughter (B) Brother and Sister

(C) Husband and wife (D) Brother –in –law and Sister – in – law

47. If A3P means A is the mother of P; A4P means A is the brother of P; A9P means A is the husband of P and A5P means A is the daughter of P; then which of the following means that K is the mother in law of M?

(A) M9N3K4J (B) M9N5K3J (C) K5J94M (D) K3J94M

Direction (48 to 50) : The question are based on the information given below.

Read the information carefully and find out the correct answer from the four alternative and write its alternative number on your answer sheet against the proper question number. There are six person P,Q,R,X,Y and Z, R is the sister of Z, Q is the brother of Y's husband. X is the father of P and grand father of Z. There are two fathers, three brothers and a mother in the group-

48. Who is Y's husband?

(A) Q (B)P (C) X (D) Z

49. Who is the mother in the group?

(A) X (B) Q (C) P (D) Y

50. How many male members are there in the group

(A) 2 (B) 1 (C) 4 (D) 3

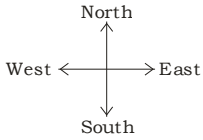
CHAPTER

15 Direction Sense

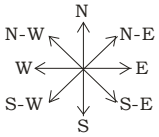
Direction Sense

Question based on directions are generally asked in each examination. Hence in order to give correct answer, a candidate must have full knowledge about directions.

There are four main directions – North, South, East and West as shown below:



There are four cardinal directions – North-East (N-E), Norht-West(N-W), South-East (S-E) and South- West (S-W). These are shown as below



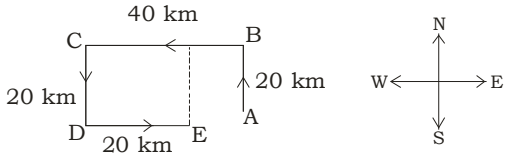
Example

1. Gauravm walks 20 km. towards North. He turns left and walks 40 km. He again turns left and walks 20 km. Finally he moves 20 km after turning to the left. How far is he from his starting position?

(A) 20 km (B) 30 km (C) 50 km (D) 60 km

Solution

(A) Required distance = 40–20 = 20 km



ASSIGNMENT-1

1. A man is facing west. He turns 45° in the clockwise directions and then another 180° in the same direction and then 270° in the anticlockwise direction. Which direction is he facing now?

(A) South (B) North west (C) West (D) South west

2. A started from a place. After walking for a kilometer, he turns to the left, then walking for a half km. he again turns to left. Now he is going Eastward direction. In which direction, did he originally start?

(A) West (B) East (C) South (D) North

3. From point P, Akshay starts walking towards East. After walking 30 metre, he turns to his right and walk 10 metre. He then turns to his right and walks for 30 metre. He again turn to his right and walk 30 metre. How far is he from point P and in which direction

(A) Point P itself (B) 10 metre North

(C) 20 metre West (D) 20 metre North

4. A walks 10 metre towards East and then 10 metre to his right. Then every time turning to his left, he walks 5, 15 and 15 metre respectively. How far is he now from his starting point?

(A) 5 metre (B) 10 metre (C) 15 metre (D) 20 metre

5. A and B start from a fixed point. A moves towards North and after walking 3 km turns to his right and covers 4 km. B moves towards West and walks 5 km and then turns to his right and walks 3 km. Now how far are A and B from each other?

(A) 1 km (B) 5 km (C) 8 km (D) 9 km

6. A person starts towards South direction. Which of the following orders of directions will lead him to East direction?

(A) right, right, right (B) left, left, right

(C) left, right, right (D) left, right, left

7. Amar travels one km due East; then 5 km due south, then 2 km due East and finally 9 km due North. How far is from the starting point?

(A) 16 kms (B) 8 kms (C) 6 kms (D) 5 kms

8. A man was facing East. He took three paces forward, turned right walked another two paces and then turned right again, took three paces and turned about. Which direction was he last facing?

(A) East (B) North (C) South (D) None of these

9. If I stand on my head with my face pointing Northwards, in what direction will my right hand point?

(A) East (B) West (C) North (D) South

10. Kumar stands with his face pointing to the South direction. He walked 15 metre and then turned Northwards and walked another 12 metre. How far was he then from the starting point.

(A) 12 metre (B) 3 metre (C) 9 metre (D) 5 metre

11. The time on the watch is quarter to three. If the minute hand points to North-East. In which direction does the hour hand point?

(A) South-West (B) South East (C) North-West (D) North-East

12. A boy rode his bicycle Northward, then turned left and rode 1 km. and again turned left and rode 2 km. He found himself one km. west of his starting point. How far did he ride northward initially ?

(A) 1 km (B) 2 km (C) 3 km (D) 5 km

13. A and B start walking in opposite directions. A and B walked 5 km, 6 km respectively. Thereafter both turned to right again and walked 3 km, again turned to right and walked 2 km. How much distant apart are they from each other?

(A) 12 km (B) 13 km (C) $\sqrt{85}$ km (D) $\sqrt{90}$ km

14. A watch reads 4 : 30. If the minute-hand points to East, in which direction does the hour-hand point?

(A) North-East (B) South-East (C) North-West (D) North

15. L is to South-West of K, M is to the East of L and South-East of K and N is to the North of M in line with LK. In which direction of K is N located?

(A) North (B) East (C) South-East (D) North-East

16. If South-East becomes North, North East becomes West and so on, what will South becomes?

(A) North-East (B) South-West (C) South (D) North-West

17. I run along the sides of a square field ABCD where C is to the North-East of A and D is to the South-East of B. Starting from A in anti-clockwise direction, in which direction shall I be running after crossing C?

(A) East (B) West (C) North-West (D) South

18. Vanshika starts her journey towards East. After walking a distance of 40 m. She turned to her left and walked 30 m. Then she turned right and covered a distance of 20 m. Then again she turned to her left and walk 50 m. In which direction is the walking now?

(A) North-west (B) West (C) North (D) East

19. One morning after sunrise Nivedita and Niharika were talking to each other face to face at Dalphin crossing. If Niharika's shadow was exactly to the right of Nivedita, which direction Niharika was facing ?

(A) North (B) South (C) East (D) Data is inadequate

20. One evening before sunset Rakha and Hema were talking to each other face to face. If Hema's shadow was exactly to the right of Hema, which direction was Rakha facing?

(A) North (B) South (C) West (D) Data is inadequate

ASSIGNMENT-2

21. Puspha moved a distance of 50 m towards the South. Then she turned to her right and walked 40 m. Again she turned right and walked 60 m. Finally, she turned to left an angle of 60°. Which direction she was facing?

(A) South (B) North-West (C) West (D) South-East

22. A husband walk looking for his wife. He went 70 m in the west. He turned to his left and walked 40 m. Again he turned to his left and walked 20 m to look for his wife at his friend house. His wife was not there. From there, he turned to his right and covered a distance of 10 m again he turned left and walked 50 m. Finally he met his wife at her friend's home. In which direction and how far the husband met his wife from the starting point

(A) 40 m South (B) 50 m East (C) 50 m South (D) 70 m West

23. Meena was facing south. Turning to his left she walked 30 m. Then she turned to her right and walked 40 m. Next, she moved 35 m to her left. Then again she turned to her left and walked 50 m. Finally, she turned to left covered a distance of 45 m. Which direction was she facing now?

(A) East (B) North-West (C) South (D) West

24. Aurav moved a distance of 60 m towards the East. Then he turned to the right and covered a distance of 50 m. Then again he turned to his right and walked 10 m. Finally, he turned to his left at an angle of 45°. In which direction was he moving now?

(A) North-West (B) South-West (C) South-East (D) North-East

25. Rekha faces towards West. Turning to her left she walks 25 m. Then again she turns to her right and walks 40 m. Finally, she turns to the left and covers a distance of 30 m. In which direction is she now moving? From the starting point.

(A) East (B) North (C) North-East (D) West

26. Partik walks 20 km towards South. From there he walks 10 km towards West. Then, he walks 5 km towards North. How far and in which direction is he with reference to his starting point?

(A) Approximately 18 km South-West (B) 24 km South-West

(C) 19 km North-East (D) 15 km North-West

27. Pankaj left for his office in his car. He drove 20 km towards East and then he turned right and drove 30 km. Then he turned left and covered a distance of 50 km. Finally, he turned left and drove 15 km. In which direction is he from his starting point?

(A) South-East (B) South-West (C) North-East (D) North-West

28. After walking a distance of 10 km towards North I turned left and covered a distance of 5 km, then turned right and covered a distance of 20 km. Then again I turned right and covered a distance of 15 km. Which direction now am I facing now?

(A) South (B) North-West (C) North (D) East

29. Starting from point X, Harvinder walked 40 m towards north. Then she turned left and walked 50 m. Then again she turned left and walked 20 m. Again she turned left and covered a distance of 30 m and reached a point Y. How far and in which direction is the point Y from the point X?

(A) 40 m, North-East (B) $10\sqrt{13}$ m, North-West

(C) $20\sqrt{13}$ m, North-East (D) 20 m, North-West

30. I am going 50 km towards East. Then I turn left and covers a distance of 40 km. Again I turn right and walk 20 km. Finally I turn my left and walk 15 km. In which direction I am from the starting point?

(A) North-West (B) North-East

(C) South-West (D) South-East

31. Going 20 kms to the East, Radha turns to her left and walks 40 km. Then, she turns to her right and walks 15 km. Then again, she turns to her right and walks 50 km. How far is she from starting point?

(A) $\sqrt{1325}$ (B) $\sqrt{1336}$ (C) $\sqrt{1327}$ (D) $\sqrt{1328}$

32. Amit walks 50 kms towards West. From there he walks 40 km towards South. Then he, turns left and walks 30 km. How far is he from stating point?

(A) 45 km (B) 46 km (C) 47 km (D) $20\sqrt{5}$ km

33. Our morning Udai and Vishal were talking to each other face to face at a crossing. If Vishal's shadow was exactly to the left of Udai, which direction was Udai facing?

(A) East (B) West (C) North (D) South

34. Kuldeep moved a distance of 40 km towards the South. Then he turned to his left and covered a distance of 60 m. Then again, he turned to his left and walked 20 m. Finally he turned to his right at an angle of 45°. In which direction was she moving now?

(A) West (B) South-West (C) North (D) North-West

35. Amit started walking positioning his back towards the sun. After some time. He turned left, then turned right and towards the left again. In which direction is he going now?

(A) North or South (B) East or West (C) North or West (D) South or West

36. The door of Vikas house faces the West. From the back side of his house he walks straight 40 m, then turns to the left and walks 40 m again. Finally, he turns towards right and stops after walking 20 m. In which direction is Vikas from the starting point now?

(A) North-East (B) South-East (C) North-West (D) South-West

37. Ram facing North. He turns left and walks 30 m. Then, he turns left again and walks 15 m. Then again he turns left and walks 50 m. In which direction is ram walking now?

(A) East (B) West (C) North-East (D) North

38. A boy is facing East. He turns 45° in the anti clockwise direction and again 135° anti clock wise direction. Then he turns 180° in clock wise direction. Which direction is he facing now?

(A) South-West (B) North-West (C) South-East (D) East

39. Swati started walking North. After 5 kms, she turned left and walked for 5 kms. How far is she from her original position?

(A) 15 km (B) 7 km (C) $5\sqrt{2}$ km (D) 5 km

40. Sam was facing East. He turns 150° in the clockwise direction and then 145° in the clockwise direction. Which direction is he facing now?

(A) North (B) North-East (C) North-West (D) East

PREVIOUS YEAR NTSE QUESTIONS

Direction (41 to 43) : Seven villages A, B, C D, E, F and G are situated as following

E is 2 km to the west of B

F is 2 km to the north of A

C is 1 km to the west of A

D is 2 km to the south of G

G is 2 km to the east of C

D is exactly in the middle of B and E

41. Which two villages are farther from one another?

(A) F - E (B) G- E (C) D- C (D) F - B

42. How far is E and F?

(A) 5 km (B) $\sqrt{26}$ km (C) 4 km (D) $\sqrt{20}$ km

43. A is in the middle of which two villages

(A) E -G (B) E - C (C) G - C (D) F - G

44. Ram travels 8 km to south, then moves to right and travels 6 km and at the end he again moves right and travels 8 km. Then the distance of Ram from initial point is

(A) 6 km (B) 8 km (C) 10 km (D) 14 km

45. Maulik walks 5 km in east direction, then he turns right and walk 8 km, again he turns left and walk 5 km, then he turns left and walk 8 km. how much would he for from his origin ?

(A) 10 km (B) 18 km (C) 31 km (D) 13 km

46. If is stand by keeping mouth in east direction and turn 100° clockwise and then turn again 145° anticlockwise, then in which direction keeping mouth will 1 stand?

(A) North-East (B) South -East (C) North -West (D) West

47. Manish goes 7 km towards South-East from his house, then the goes 14 km turning to West. After this he goes 7 km towards North West and in the end he goes 9 km toward East. How far is the from his house?

(A) 14 km (B) 7 km (C) 2 km (D) 5 km

48. Ranjan goes 5 km towards North from a fixed point. Then he goes 3 km after turning to his right. After this he goes 5 km turning to his right. In the end he goes 4 km after turning to this left. How far and in what direction is he now from the fixed point?

(A) 4 km, West (B) 7 km, East (C) 9 km, East (D) 7 km, West

49. I am facing South, I turn right and walk 20 m, Then I turn right again and walk 10 m. Then I turn left and walk 10 m and then turning right walk 20 m. Then I turn right again and walk 60 m. In which direction am I from the starting point?

(A) North (B) North-West (C) East (D) North-East

50. A walks 10 metres towards East and then 10 meters to his right. Then every time turning to his left he walks 5, 15 and 15 meters respectively. How far is he now from his starting point?

(A) 8 meters (B) 10 meters (C) 15 meters (D) 20 meters

CHAPTER

16 Mathematical Operation

Mathematical Operation

We are all familiar with the symbols used for indicating mathematical operations such as addition, subtraction, multiplication and division. When more than one symbol is used in a mathematical expression, we are not supposed to carry out the operations at our discretion. There is a rule as to which operation is to be carried out first. This rule is called the BODMAS rule. Each latter of the world BODMAS represents a mathematical operation and the order of the letters indicates the order in which the operations are to be carried out. The operations indicated by the letters in BODMAS are given below :

B	Brackets – removal of brackets (after simplifying the terms therein)
O	Order (exponents) – conversion of exponents to normal form
D	Division
M	Multiplication
A	Addition – addition of numbers with like signs
S	Subtraction – subtraction of numbers with opposite signs

Example

1. X stands for +, Z stands for ÷, Y stands for –, and P stands for ×, then what is the value of 10 P 2 X 5 Y 5?

(A) 10 (B) 15 (C) 20 (D) 25

$\Rightarrow$ 10 P 2 X 5 Y 5

$10 \times 2 + 5 - 5 = 20$

So, the answer is (C)

2. If L denotes ×, M denotes ÷, P denotes + and Q denotes –, then find the value of 16 P 24 M 8 Q 6 M 2 L 3

(A) 6 (B) 8 (C) 10 (D) 12

$\Rightarrow$ 16 P 24 M 8 Q 6 M 2 L 3

$16 + 24 \div 8 - 6 \div 2 \times 3$

$16 + 3 - 3 \times 3$

$16 + 3 - 9 = 10$

So, the answer is (C)

ASSIGNMENT-1

Direction (1 to 6) : The given equation becomes correct when symbols and number are interchanged as given in one of the options. Find the correct option

1. $27 \div 3 - (4+7) \times 18 = -1$

(A) ÷ and × (B) + and – (C) – and ÷ (D) × and +

2. $6 + 45 - 9 \div 4 \times 2 = 3$

(A) × and – (B) ÷ and + (C) ÷ and – (D) + and ×

3. 40 + 3 ÷ 1 × 3 – 26 = 15
   (A) ÷ and × (B) + and × (C) – and ÷ (D)+ and ÷
4. (27–8) ÷ 24 + 7 × 3 = 13
   (A) + and × (B) ÷ and × (C) ÷ and + (D) × and –
5. 48 + 69 – 23 × 8 ÷ 22 = 50
   (A) × and ÷ (B) ÷ and + (C) × and + (D) – and ÷
6. 32 ÷ 4 × 6 + 3 –12 = 14
   (A) × and + (B) + and – (C) – and ÷ (D) + and÷

Direction (7-9) Mathematical symbols (sings) are missing between the numbers. The missing symbols in proper sequence are given in the alternatives. When the symbols given in one of the alternatives are inserted between the numbers in the same sequence, the equation becomes correct. Find the correct alternative.

7. 69 23 111 37 1 = 10
   (A) + – × ÷ (B) ÷ + ÷ – (C) × – × – (D) ÷ × ÷ +z
8. (8 7) 5 (78 6) = 62
   (A) – × × ÷ (B) + × – ÷ (C) + ÷ + ÷ (D) × – – ÷
9. (13 9) (14 11) 13 = 3
   (A) + × + ÷ (B) – × – ÷ (C) × ÷ – ÷ (D) × × – ÷

Directions (10-20) : In question below, equations have become wrong due to wrong order of signs. Choose the correct order of signs from the give alternatives given under each question so that the equation becomes right.

10. 7 + 2 = 2 × 3
    (A) = × + (B) = + × (C) = + ÷ (D) + × =
11. 7 + 2 × 6 = 20
    (A) = × + (B) × – = (C) + ÷ = (D) ÷ + =
12. 15 ÷ 5 = 2 × 1
    (A) ÷ × = (B) ÷ = × (C) × = + (D) ÷ = +
13. 6 = 3 – 6 ÷ 12
    (A) = × ÷ (B) ÷ = × (C) + = – (D) ÷ × =
14. 3 + 1 ÷ 4 = 16
    (A) – = × (B) × + = (C) + × = (D) = × +
15. 8 ÷ 4 = 2 + 1
    (A) ÷ = + (B) ÷ ÷ = (C) ÷ × = (D) = ÷ ÷
16. 2 × 2 + 2 = 2
    (A) × ÷ = (B) × = ÷ (C) + × = (D) × + =
17. 5 – 6 + 8 = 3
    (A) + – = (B) + = – (C) – = × (D) ÷ × =
18. 7 ÷ 7 = 1 × 7
    (A) + – = (B) ÷ × = (C) ÷ = × (D) × = ÷
19. 3 = 3 – 7 + 0
    (A) – + = (B) + × = (C) – × = (D) = × –
20. 4 = 4 + 4 ÷ 2
    (A) + × = (B) = × + (C) ÷ = × (D) + = ×

ASSIGNMENT-2

21. If P means ×, R means +, T means ÷ and S means –, then
    18 T 3 P 9 S 8 R 6 = ?
    (A) $-1\frac{1}{3}$ (B) 46 (C) 52 (D) $\frac{2}{3}$
22. If A means –, B means ÷, C means + and D means ×, then

15 B 3 C 24 A 12 D 2 = ?

(A) 2 (B) $\frac{5}{9}$ (C) $-23\frac{4}{9}$ (D) None of these

23. If A = 16, C = 8, D = 3, and B = 9, then
C + A × B ÷ D = ?
(A) 27 (B) 46 (C) 72 (D) None of these

24. If A stands for +, B stands for –, C stands for × then the value of
(10C4) A (4C4)B6 = ?
(A) 60 (B) 56 (C) 50 (D) 46

25. If + means ×, ÷ means –, × means ÷ and – means + then the value of
58–6×34÷2 + ?
(A) 49 (B) 64 (C) 104 (D) None of these

26. If + means ×, – means ÷, × means –, and ÷ means +, then the value of
16÷ 64 – 8 × 4 + 2 = ?
(A) 12 (B) 16 (C) 18 (D) 2

27. In the following question you have to identify the correct response from given premises stated according to the following questions
If ÷ stand for greater than, × stand for addition; + stands for division, – stands for equal to, > stands for multiplication, = stands for less than, < stands for minus, then which of the following alternatives is correct?
(A) 3 + 2 < 4 ÷ 6 > 3 × 2 (B) 3 × 2 < 4 ÷6 + 3 < 2
(C) 3 × 2 < 4 – 6 × 3 × 2 (D) 3 × 2 × 4 = 6 + 3 < 2

28. If "÷" means "+", "–" means "÷", "×" means "–" and "+" means "×", then
32÷8–4×12+4 = ?
(A) 40 (B) 1/12 (C) 16 (D) –14

29. If "x" stands for "+"; "y" stands for "–", "z stands for "÷" and "w" stands for "×" then
10w 2x 5y 5 = ?
(A) 15 (B) 12 (C) 20 (D) 10

30. If "–" stands for "×", "×" stands for "+", "+" stands for "÷" and "÷" stands for "–", then what will be the value of the following equation?
8–4+16×8–10 = ?
(A) 54 (B) 82 (C) 15 (D) 10

31. If Δ denotes =; + denotes >, – denotes <, $\square$ denotes $\neq$, × denotes > and ÷ denotes < then
a + b – c denotes
(A) $b \Delta c \square a$ (B) $b \square a \div c$ (C) $a \div b \times c$ (D) $b - a + c$

32. If * denotes "×", Δ denotes "÷", $\square$ denotes "–", $\bullet$ denotes "+", α denotes "=" and β denotes $\neq$, then which of the following equation is correct?
(A) $2 \square 10 * 4 \Delta 5 \alpha 5 \bullet 12 \Delta 6$ (B) $27 \Delta 9 \bullet 6 \beta 3 * 6 \square 9$
(C) $4 \Delta 2 * 0 \alpha 7 \Delta 1 * 0$ (D) None of these

33. If the given signs + and – are interchanged then which of the following equations will be correct?
(A) 2 + 7 – 8 = 3 (B) 3 – 1+ 4 = 2 (C) 9 + 3 – 5 = 7 (D) 6 + 3 – 8 = 5

34. If 'A' stands for 'X' , B stands for '–', C stands for '+' and D stands for '÷', what will be the result of the following expression?
8 B 3 C 10 A 2 D 5
(A) 7 (B) 1 (C) 9 (D) 13

35. If '×' means '+', '÷' means '–', '+' means '÷' and '–' means '×', then what will be the result of the following expression?

$8 \times 7 - 8 + 40 \div 2$

(A) 4 (B) $6\frac{3}{7}$ (C) 13 (D) $7\frac{2}{5}$

36. If plus means divided by multiplied by means minus, divided by means multiplied by and minus means plus, then

$18 + 3 \div 4 - 8 \times 12 = ?$

(A) $6\frac{1}{4}$ (B) 20 (C) $3\frac{1}{3}$ (D) $-6\frac{2}{3}$

37. If – means ×, '+' means '÷', '×' means '+' and '÷' means '–', then

$8 + 6 \div 4 - 7 \times 3 = ?$

(A) $7\frac{1}{5}$ (B) 12 (C) $-11\frac{1}{2}$ (D) $-23\frac{2}{3}$

38. If A stands for '+', B stands for '–', C stands for '×', then 10 C 4 A 4 B 6 = ?

(A) 50 (B) 42 (C) 58 (D) 46

39. If ↓ stands for '÷', ↑ stands for '×', → stands for '+' and ← stands for '–', then

(A) 9 (B) 12 (C) 16 (D) 15

40. If '+' means '×', '–' means '÷', '×' means '–' and '÷' means '+', then

$9 + 8 \div 8 - 4 \times 9 = ?$

(A) 65 (B) 17 (C) 26 (D) 11

PREVIOUS YEAR NTSE QUESTIONS

41. In a certain code language if 3 + 3 = 9, 6 – 3 = 2, 4 × =1, 3 ÷ 2 = 1, then find the value of 5 + 4 ÷ 24 – 8 × 6 in the same code language?

(A) 9 (B) 11 (C) 17 (D) 29

42. In the following example, if the number, if the numbers 3 and 5 are interchanged and the numbers 7 and 9 are interchanged, the find the value of the following expression

$93 \div 5 + 7 \times 3 + 25 =$

(A) 95 (B) 73 (C) 57 (D) 75

43. If × stands for – + stands for ÷, ÷ stands for × and – stands for + then

$6 \div 4 + 3 - 7 \times 9 + 3$ is

(A) 20 (B) 16 (C) 16 (D) 19

44. If 9 + 3 = 6273, 8 + 2 = 6164 then 10 + 5 =

(A) 5250 (B) 5515 (C) 5502 (D) 5205

45. If × means ÷, – means ×, – means + and + means –, then

$(3 \times 15 \div 19) \times 8 + 6 = ?$

(A) 8 (B) 4 (C) 2 (D) – 1

46. If ÷ means ×, × means ÷, – means ÷ and ÷ means –, then –

$16 \times 2 \div 4 + 7 - 8 = ?$

(A) 31 (B) 29/2 (C) 43/2 (D) 15

47. If 'p' means '–', 'q' means '+', 'r' means '÷' and 's' means '×', then –

16 p 4 q 5s 8r 2= ?

(A) – 8 (B) 32 (C) 20 (D) 12

48. A + B > C + D and B + C > A + D then it is definite that

(A) D > B (B) C > D (C) A > D (D) B > D

49. If 264 * 2 = 6, 870 * 3 = 11 then 735 * = be

(A) 5 (B) 12 (C) 16 (D) 3

50. If '+' means '×' , '×' means '÷' , '÷' means '–' and '–' means '+', which will be the value of (22× 2 ÷4 –5)+8 =?

(A) 14 (B) 28 (C) 96 (D) 56

CHAPTER

17 Coding Decoding

A Code is a system of signals. Therefore, Coding is a method of transmitting a message between the sender and the receiver without a third person knowing it.

The Coding and Decoding Test is set up to judge the candidate's ability to decipher the rule that codes a particular word/message and break the code to decipher the messages.

Example – 1:

In a certain code, TEACHER is written as VGCEJGT. How is CHILDREN written in that code?

a) EJKNEGTP b) EGKNFITP c) EJKNFGTO d) EJKNFTGP

Sol. Clearly, each letter in the word TEACHER is moved two steps forward to obtain the corresponding letter of the code.

	T		E		A		C		H		E		
		R											
+2	↓	+2	↓	+2	↓	+2	↓	+2	↓	+2	↓	+2	
		↓											
	V	T	G		C		E		J		G		

Similarly, we have:

	C		H		I		L		D		E		E	
			N											
+2	↓	+2	↓	+2	↓	+2	↓	+2	↓	+2	↓	+2	↓	+2
	↓													
	E		J		K		N		F		T		G	
			P											

So, the desired code is EJKNFTGP. Hence, the answer id (D).

ASSIGNMENT-1

1. If the word HAPPEN is coded as IJBCQRQRFGOP, what word does 'CDFGTUUV' stand for?

   (A) WEST (B) NAME (C) BEST (D) LAME

2. If SLEEP is coded as XMKKB, SPEAR is coded as XBKOY and PULL as BFMM, how would you decode PLEASURE?

   (A) KMNOXYZ (B) BMOKXFYK (C) BMKOXFYK (D) MOKXB

3. If VKRYH means SHOVE, what would SLVWRO mean?

(A) PISTOL (B) BRASSO (C) SOLUTE (D) MATURE

4. In a certain code if FHQK means GIRL, how will WOMEN be written in the same code?

(A) VNLDM (B) FHQKN (C) XPNFO (D) VLNDM

5. In a code language LONDON is written as MPOEPO. What is the code for CPNCBZ?

(A) DQODCA (B) BOMBAY (C) MADRA (D) RAJKOT

6. In a certain code MONKEY is written as XDJMNL. How would TIGER be written in the same code?

(A) QDFHS (B) SHFDQ (C) UJHHFS (D) QDHJS

7. If CLOCK is KCOLC, how will STEPS be written in that code?

(A) SPEST (B) SPSET (C) SPETS (D) SEPTS

8. In a certain code GAMESMAN is written as AGMEMSAN. How will DISCLOSE be written in that code?

(A) IDSCOLSE (B) IDCSOLES (C) IDSCOLES (D) IDSCLOSE

9. In a certain code PRACTICAL is written a PARTCCILA, how is TRAINS written in the same code?

(A) TARINS (B) TANRIS (C) TAIRNS (D) TARNIS

10. If GOLFER is coded as HNMEFQ. HUNGER is coded as

(A) ITOFFQ (B) IVOHFS (C) ITODFQ (D) TIDOQF

11. If POWER stands for 72514, then ROW stands for

(A) 452 (B) 425 (C) 524 (D) 542

12. If 312534 stands for RECORD, then 353 stands for

(A) ROD (B) COR (C) ROC (D) ROR

13. If GROWTH stands for 579312, then THROW stands for

(A) 12793 (B) 21793 (C) 21973 (D) 21379

14. If INDEED stands for 123443 then NEED stands for

(A) 4423 (B) 2434 (C) 2344 (D) 2443

15. If SLIGHT stands for 426875, then GIST stands for

(A) 6845 (B) 8645 (C) 4568 (D) 4586

16. If 75310 stands for SWEAT, then 710 stands for

(A) SET (B) SAT (C) EAT (D) TEA

17. If HOME is 2541; SHOP is 8256; WORK is 9573, what is SMOKE?

(A) 85431 (B) 84531 (C) 83451 (D) 84351

18. If RACE is 4793, FACT is 1795 FORCE is 16493, what is REACT?

(A) 43759 (B) 43975 (C) 43795 (D) 59734

19. If EARTH is 12347, TRACE is 43251, FARCE is 92351, then what is FACT?

(A) 9254 (B) 9524 (C) 9245 (D) 9425

20. If PLOT is 5321, TAKE is 1790 and PINK is 5469, what is PLATE?

(A) 35710 (B) 53710 (C) 53701 (D) 53071

ASSIGNMENT-2

21. If PALE is coded as 2134, EARTH, is coded as 41590, how is PEARL coded in that code

(A) 29530 (B) 24153 (C) 25413 (D) 25430

22. In a certain language, A is coded as 1, B is coded as 3, C is coded as 5 and so on, how is GARAGE coded in that language

(A) 113193118 (B) 132362139 (C) 131271138 (D) 131351139

23. If in a certain code, SISTER is coded as 535301, UNCLE as 84670, and BOY as 129, how is SON coded in that code?

(A) 524 (B) 643 (C) 353 (D) 846

24. If in a certain language PRIVATE is coded as 1234567 and RISK is coded as 2198, how is RIVETS coded in that language?

(A) 687543 (B) 234769 (C) 496321 (D) 246598

25. If PLAY is coded as 8123 and RHYME is coded as 49367, how is MALE coded?

(A) 6217 (B) 6198 (C) 6395 (D) 6285

26. In a certain code 'Bir le nac' means 'Green and tasty', Pic nac hor' means 'Food is tasty'. Which of the following means "Tomato is tasty" in that code

(A) Hor bir pic (B) Pic hor nac (C) Bir le hor (D) None of these

27. If 'Nitco sco tingo' stands for 'Softer than flowers'. 'Tingo rho mst' stands for Sweet flower fragrance', and 'Mst Sco tmp' stands for 'Sweet than smile', what would 'Fragrance' stand for

(A) Rho (B) Mst (C) Tmp (D) Sco

28. In a certain code language, 'Sup na kol' means 'Fruit is good', 'Kol so hir' means 'Tree is tall' and 'Sup zo yop' means 'Eat good food', which of the following means fruit in that language?

(A) Sup (B) Na (C) Kol (D) None of these

29. In a certain code language, 3a, 2b, 7c means 'Truth is Eternal', 7c, 9a, 8b, 3a means 'Enmity is not Eternal', 10a, 4d, 2b, 8b means 'Truth does not Perish'. Which of the following means 'Enmity' in that language?

(A) 3a (B) 2b (C) 7c (D) 9a

30. In a certain code language, 'Pre nat bis' means 'Smoking is harmful, ' Vog dor nat' means 'Avoid harmful habit' and Dor bis yel means 'Please avoid smoking'. Which of the following means 'habit' in that language?

(A) Vog (B) Nat (C) Dor (D) None of these

31. If orange is called 'Butter', Butter is called 'Soap, Soap is called 'Ink', 'Ink' is called 'Honey', Honey' is called 'Orange', which is used for washing clothes?

(A) Honey (B) Butter (C) Orange (D) Ink

32. If 'Water' is called 'Food, 'Food' is called 'Tree', Tree' is called 'Sky', 'Sky' is called 'Wall'. On which of the following grows a fruit?

(A) Water (B) Food (C) Sky (D) Tree

33. If Cloud is called 'White, 'White is called 'Rain', 'Rain' is called 'Green', 'Green' is called 'Air', 'Air' is called 'Blue' and 'Blue' is called 'Water'. Where do the birds fly?

(A) Air (B) Cloud (C) White (D) Blue

34. If 'Banana' is 'Apple, 'Apple' is 'Grapes', 'Grapes' is 'Mango', 'Mango' is 'Nuts', 'Nuts' is 'Guava', which of the following is a yellow fruit?

(A) Mango (B) Guava (C) Apple (D) Nuts

35. If 'Shirt' is called 'Belt', 'Belt' is called 'Shoes', 'Shoes' is called 'Pullover', 'Pullover' is called 'Hat', 'Hat' is called 'Collar', then which of the following would a man wear in winter?

(A) Hat (B) Pullover (C) Shirt (D) Collar

36. If WORD is coded as 15 how will you code GOLD?

(A) 9.5 (B) 40 (C) 8.5 (D) 3.8

37. If BASIC is coded as 6.8, how will you code TEARS?

(A) 34 (B) 12.6 (C) 40 (D) 36

38. If PUSH is coded as 64 how will you code MUST?

(A) 36 (B) 73 (C) 18 (D) 38

39. If CLASS is coded as FODVV, how will you code MONTH?

(A) OQPVJ (B) PRQWK (C) RTVYM (D) QSUXL

40. If TILAK is coded as VKNCM, how will you code TIMES?

(A) PNOGH (B) UJNFT (C) VKOGU (D) WLPHV

PREVIOUS YEAR NTSE QUESTIONS

Direction (41-44): The letters in column I are coded in the form of numbers. Which are written in column II, but the order of numbers in different. Read carefully code of letters. Find out correct answer in given alternative and write its alternative number against the corresponding question number on your answer sheet

Column I	**Column II**
C J L	**359**
E J P	**092**
P C K	**304**
K N D	**478**
N E V	**721**

41. What will be code of K N P -

(A) 870 (B) 327 (C) 951 (D) 470

42. What will be code of C J E

(A) 123 (B) 392 (C) 724 (D) 803

43. What will be code of L J K -

(A) 270 (B) 903 (C) 594 (D) 741

44. What will be code of P V D

(A) 018 (B) 372 (C) 209 (D) 743

45. If in certain code language E J N P is written as C G J K. What will be code of C H L R in same language?

(A) A D H N (B) B E J M (C) E J I O (D) A E H M

46. If in certain code language G L R T is written as 21. What will be code of C H N S in same language?

(A) 13 (B) 11 (C) 19 (D) 17

47. If UDOMETER is coded as DUMOTERE then how will SUBLEASE be coded?

(A) USLBESAE (B) USLBAEES (C) USBAELES (D) none of these

48. If RASCAL is coded as QZRBZK then how will SOLDER be coded?

(A) RNMEDQ (B) RPKEDS (C) TPMEFS (D) RNKCDQ

49. If Sand is a coded as Brick, Brick as House, House as Temple, Temple as Palace then where do you worship?

(A) Palace (B) Temple (C) Brick (D) House

50. If 678 means – Society Family Husbandry, 574 means – Husbandry Health Control, 342 means – Health census shop, then – which code has been used for "Health"

(A) 7 (B) 4 (C) 2 (D) None of these

CHAPTER

18

Number and Ranking

Number and Ranking

Ranking is based on the arrangement of things in a particular order. The arrangement may be on the basis of their position, size, age etc.

Position Series Test :

In this series, question are asked about the positions of the persons from up or down, or from left or right etc, a some important types are as given below:

Examples

1. In a line of girls if Kamla's position from the left is 15^{th} and from the right her position is 17^{th}, how many girls are there in the line?

(A) 20 (B) 21 (C) 31 (D) 36

Solution

(C) Total no. of girls = Kamla's position from left + her position from the right –1

= 15+17–1 = 31

2. In a line girls Nivedita's position from the left is 18^{th} and Priti's position from the right is 22^{nd}. If there are 5 girls between them, what is the total number of girls in the lines?

(A) 22 (B) 33 (C) 44 (D) 55

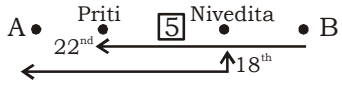
Solution

(B) In this question there are two possible positions.

Position I

∴ Total no. of girls = 18+5+22 = 45

Position II



∴ Total no. of girls = 22+18–(5+Priti + Nivedita) = 22+18–7 = 33

ASSIGNMENT-1

1. How many 6's are there in the following number series, which are preceded by 5 but not followed by 7?

   5676564927674356864956 7

   (A) One (B) Two (C) Three (D) Four

2. How many 4's are there in the following number series, which are preceded by followed by only an even number

   643248315423246481324 2645

   (A) One (B) Two (C) Three (D) Four

3. How many 2's are there in the following number series, which are preceded by 5 but not followed by an odd number?

   13523545245226245267823527524

   (A) One (B) Two (C) Three (D) None of these

4. How many 3's are there in the following series, which are not preceded by an odd number but followed by 4?

   153234653478349234563435 34

   (A) None (B) Two (C) Four (D) One

5. How many B's are there in the following letter series which are flowed by G but G is not be followed by S?

   BGSQBRNOBGNSQLTBGQTDBGUWXBGF

   (A) 4 (B) 3 (C) 2 (D) 5

6. How many D's are there in the following series, which are preceded by K and followed by Q?

   KDRMBSKDQKRBLKDQMQDKEFQDK

   (A) 4 (B) 2 (C) 1 (D) 3

7. If the number from 4 to 55 which are divisible by 3 and also the numbers which contain 3 as one of the digits, are removed, then how many numbers will be left?

   (A) 24 (B) 23 (C) 22 (D) 25

8. Which is the third number to the left of the number which is exactly in the middle of the following sequence of numbers

   1 2 3 4 5 6 7 8 9 2 4 6 8 9 7 5 3 1 9 8 7 6 5 4 3 2 1

   (A) 3 (B) 4 (C) 5 (D) 6

9. How many 3's are there in the following sequence which are neither preceded by 6 nor immediately followed by 9?

   9 3 6 6 3 9 5 9 3 7 8 9 1 6 3 9 6 3 9

   (A) One (B) Two (C) Three (D) Four

10. Count each 7 which is not immediately preceded by 5 but is immediately followed by either 2 or 3. How many such 7's are there?

    5 7 2 6 5 7 3 8 3 7 3 2 5 7 2 7 3 4 8 2 6 7 8

    (A) 2 (B) 3 (C) 4 (D) 5

11. How many 6's are there in the following series of numbers which are preceded by 7 but not immediately followed by 9?

    6 7 9 5 6 9 7 6 8 7 6 7 8 6 9 4 6 7 7 6 9 5 7 6 3

    (A) One (B) Two (C) Three (D) Four

12. How many 7's are there in the following series which are not immediately followed by 3 but immediately preceded by 8?

8 9 8 7 6 2 2 6 3 2 6 9 7 3 2 8 7 2 7 7 8 7 3 7 7 9 4

(A) 10 (B) 3 (C) 2 (D) 0

13. Count each 1 in the following sequence of numbers that is immediately followed by 2, but 2 is not immediately followed by 3. How many such 1's are there?

1 2 1 3 4 5 1 2 3 5 2 1 2 6 1 4 5 1 1 2 4 1 2 3 2 1 7 5 2 1 2 5

(A) 2 (B) 4 (C) 5 (D) 7

14. How many 7's are there in the following series which are preceded by 6 which is not followed by 8

8 7 6 7 8 6 7 5 6 7 9 7 6 1 6 7 7 6 8 8 6 9 7 6 8 7

(A) Nil (B) One (C) Two (D) Three

15. In the following list of numerals, how many 2's are followed by 1's but not preceded by 4?

4 2 1 2 1 4 2 1 1 2 4 4 4 1 2 2 1 2 1 4 4 2 1 4 2 1 2 1 2 4 1 4 2 1 2 4 1 4 6

(A) Two (B) Three (C) Four (D) Five

16. If Prateek finds that he is twelfth from the right in a line of boys and fourth from the left, how many boys should be added to the line such that there are 28 boys in the line?

(A) 12 (B) 13 (C) 14 (D) 20

17. Varsha ranked sixteenth from the top and twenty ninth from the bottom among those who passed an examination. Six boys did not participate in the competition and five failed in it. How many boys were there in the class?

(A) 40 (B) 44 (C) 50 (D) 55

18. Some boys are sitting in a row. P is sitting fourteenth from the left and Q is seventh from the right. If there are four boys between P and Q, how many boys are there in the row?

(A) 25 (B) 23 (C) 21 (D) 19

19. Radhika ranks twelfth in a class of forty six. What will be her rank from the last?

(A) 33rd (B) 34th (C) 35th (D) 37th

20. Ranbir and Rajbir are ranked seventh and eleventh respectively from the top in a class of 31 students. What will be their respective ranks from the bottom in the class?

(A) 20th and 24th (B) 24th and 20th

(C) 25th and 21st (D) 26th and 22nd

ASSIGNMENT-2

21. Mayur is 7 ranks ahead of Manoj in a class of 39. If Manoj's rank is seventeenth from the last, what is Mayur's rank from the start?

(A) 14th (B) 15th (C) 16th (D) 17th

22. In a class of 60, where girls are twice that of boys, Rohit ranked seventeenth from the top. If there are 9 girls ahead of Rohit, how many boys are after him in rank?

(A) 3 (B) 7 (C) 12 (D) 23

23. In a row of ten boys, when Neeraj was shifted by two places towards the left, he became seventh from the left end. What was his earlier position from the right end of the row?

(A) First (B) Second (C) Fourth (D) Sixth

24. In queue, Piyush is fourteenth from the front and Om is seventeenth from the end, while Palak is in between Piyush and Om. If Piyush be ahead of OM and there be 48 persons in the queue, how many persons are there between Piyush and Palak?

(A) 8 (B) 7 (C) 6 (D) 5

25. In a row of girls, Preeti and Meena occupy the ninth places from the right end and tenth place frm the left end, respectively If they interchange their places, Preeti and Meena Occupy seventeenth places from, Preeti and Meena occupy seventeenth places from the right and eighteenth place from the left, respectively How many girls are there in the row?

(A) 25 (B) 26 (C) 27 (D) Date inadequate

26. In a row of girls, Shruti is eighth from the left and Sandy is seventeenth from the right. If they interchange their positions, Shruti becomes fourteenth from the left. How many girls are there in the row?

(A) 25 (B) 27 (C) 29 (D) None of these

27. In a queue of children, Mahima is fifth from the left and Mehak is sixth from the right. When they interchange their places among themselves, Mahima becomes thirteenth from the left. Then, what will be Mehak's position from the right?

(A) 4^{th} (B) 8^{th} (C) 14^{th} (D) 15^{th}

28. In a row of boys, Ajay is eighth from the right and Vijay is twelfth from the left. When Ajay and Vijay interchange position, Ajay becomes twenty first from the left. Which of the following will be Vijay's position from the right?

(A) 8^{th} (B) 17^{th}

(C) 21^{st} (D) Cannot be determined

29. Tree persons A, B and C are standing in queue. There are five persons between A and B and eight persons between B and C. If there be three persons ahead of C and 21 personal behind A, what could be the minimum number of persons in the queue?

(A) 41 (B) 40 (C) 28 (D) 2

30. In a row of boys, Akshay is seventh from the left and Serma is twelfth from the right. If they interchange their positions, Akshay becomes twenty send from the left How many boys are there in the row?

(A) 19 (B) cant be determined

(C) 33 (D) None of these

31. Shivam remembers that his brother Harsha's birthday falls after 20^{th} May but before 28^{th} May, while Alia remember that Harsha's birthday falls before 22^{nd} May but after 12^{th} May. On what date Harsha's birthday falls?

(A) 20^{th} May (B) 21^{st} May

(C) 22^{nd} May (D) Cannot be determined

32. Yamini remembers that her father's birthday was certainly after eighth but before thirteenth of December. Here sister Kamani remembers that their father's birthday was definitely after ninth but before fourteenth of December. On which date of December was their father's birthday?

(A) 10^{th} (B) 11^{th}

(C) 12^{th} (D) Data inadequate

33. Tejas remembers that his elder brother was born between 1th and 16^{th} April while his mother remembers that he was born after 14^{th} April and before 17^{th} April. If the statements of both are considered correct then on which date of April he was born?

(A) 14 (B) 16 (C) 14 pr 15 (D) 15

34. In Wagha Border Amritsar, persons are sitting in a row for watching a parade, Dhiraj is at ninth ranks ahead of Sujeet in a row of 35 persons. If Sujeet's rank is eighteenth form the last. What is Dhiraj's rank from the start?

(A) 7 (B) 8 (C) 11 (D) 10

35. In an annual job fest, Amita is 7th rank ahead of Mukul who ranks twenty-fifth from starting in a 55 persons. What is Anita rank from the start?

(A) 36 (B) 38 (C) 19 (D) 18

36. In a yoga centre, persons are sitting a row. Manjul is eleventh from the left and Anisha is fifteenth from the right. If in this row Manjul is twelfth from the right then what is the position of Anisha from left?

(A) 12 (B) 13 (C) 8 (D) 15

37. In a finale of KBC, audience are sitting in a row, Pooja is fifth from the left and Aditya is ninth from right end in a row. If there are eight audience/ persons between Pooja and Aditya. How many persons are there in the row?

(A) 20 (B) 21 (C) 22 (D) 23

38. In the examination, students are sitting in a row. Ankul is fourteenth from the left and Babita is third from the right. There are five students sitting between Ankur and Babita, Chitra is just left of Ankur. What is Chitra's position from right?

(A) 9 (B) 10 (C) 11 (D) 12

39. IN a group dance competition, one of the formation of dance is in the form of row. Amrita is twelfth from the left end of a row of 32 girls and Nisha is twelfth from the right end in the same row. How many girls are there between them in the row?

(A) 6 (B) 7 (C) 8 (D) 9

40. In a Union of 30 persons, X is eleventh from left end and Y is seventh from the right end. How many person are there between X and Z if Z is fourth to the left of Y?

(A) 4 (B) 5 (C) 6 (D) 8

PREVIOUS YEAR NTSE QUESTIONS

41. There are 35 students in a class, Suman ranks 3rd among the girls in the class Amit ranks 5th among the boys in the class, Suman is one rank below Amit in the class. No two students hold the same rank in the class. What is Amits rank in the class?

(A) 7th rank (B) 5th rank

(C) 8th rank (D) Can not be determined

42. In a row of students when 'A' was shifted by four places towards the right, he became thirteenth from the left end. His earlier position from the right end of the row is:

(A) 11 (B) 9 (C) 12 (D) 10

43. Ina line of 200 players. Kartikey sequence is 18th from the left side what is his sequence order from the right side

(A) 182 (B) 183 (C) 185 (D) 186

44. If same ranked ninth from the top and 42tnd form the bottom in a class, the number of students in the class is:

(A) 51 (B) 50 (C) 49 (D) 52

45. The number of 7's in the following series which are preceded by 6 and which is not preceded by 8, is:

8767887567976177688697689

(A) 3 (B) 4 (C) 8 (D) 5

46. How many 3,s are there in the following number series, which are preceded by an odd number out not followed by an even number ?

342531521367318278539134523543 5

(A) One (B) two (C) Three (D) Four

47. How many 4,s are there in the following number-series which are preceded by 5 but not followed by 7? 2342342547324319254754723 4529546

(A) One (B) two (C) Three (D) Four

48. How many D's are there in the following letter-series which are preceded by K and following by Q?

KDRMBSKDQKRBLKDQMQDKEFQDK

(A) 4 (B) 2 (C) 1 (D) 3

49. 42341122341224433534112 3 in the above series, how many 3's are there such that 4 comes before?

(A) 4 (B) 3 (C) 2 (D) 1

50. Harshal is standing at the centre of a raw of boys. Ujwal is eighth to the left of Harshal, Shubham is standing twenty first of Ujwal, but he is thirteenth to the left of Kishore. Find the total number of boys standing in a row.

(A) 27 (B) 35 (C) 52 (D) 53

CHAPTER

19

Alphabet Test Letter Change Sequence

Alphabet Test Letter Change Sequence

In letter change sequence a word is given, its letter are interchanged in some sequence, then the changed word is formed by then instructions.

Examples

1. Prudent if P interchange with fifth position third letter is interchange with adjacent left and n is interchanged to immediate right, then what word will be formed

(A) Eurdptn (B) Urdpnet (C) Pneurtd (D) pruendt

Solution

(A) New word will be Eurdptn

ASSIGNMENT-1

1. Number of letters skipped in between the adjacent letters in the series are consecutive even numbers

Which of the following series observes this rule?

(A) CDFIM (B) ADIPY (C) GIMSZ (D) DFJPX

2. Number of letters skipped in between adjacent letters in the series increases by one. Which one the following series observes this rule?

(A) CPTOV (B) HCFKP (C) HJHQV (D) IKNRW

3. Two letters in the word COUPLE have as many letters between them as in the English alphabet. The letter which appears first in the alphabet is the answer. If there is not such pair of letters in the work, then mark your answer as X

(A) L (B) O (C) P (D) X

4. The position of how many letters I the word BRAKES remains unchanged when they are arranged in alphabetical order?

(A) One (B) Two (C) Three (D) More than three

5. If the letters of the word TRANSFORM are rearranged as they appear in the English alphabet, then the position of how many letters will remain unchanged after such rearrangement?

(A) None (B) One (C) Two (D) Three

6. The positions of how many letters in the word WONDERFUL will remain unchanged when the letters within the word are arranged alphabetically?

(A) None (B) One (C) Two (D) Three

7. If the order of letters of each of the following words is reversed, then which of the following will be the meaningful word? If more than one such word can be formed, mark 'S' as the answer and if no such word can be formed, mark 'X' as the answer

NAIL, PAIL, RAIL, MADAM, REST

(A) PAIL (B) RAIL (C) MADAM (D) S

8. If the letters in the word UNDERTAKING are rearranged in the alphabetical order, which one will be in the middle in order after the rearrangement?

(A) G (B) I (C) K (D) N

9. Which letter in the word CYBERNETICS occupies the same position as it does in the English alphabet?

(A) C (B) E (C) I (D) T

10. If the first and second letters in the word DEPRESSION were interchanged, also the third and the fourth letters, the fifth and the sixth letters and so on, which of the following would be the seventh letter from the left?

(A) R (B) O (C) S (D) I

11. In which of the following letter sequences, there is a letter leaving two letters of the alphabet in order, after the letters placed at odd-numbered positions and leaving one letter of the alphabet in order at even numbered positions?

(A) ADFIKN (B) BEGJLN (C) CFHKLO (D) DFIKNP

12. Select the series in which letters are not according to a general rule.

(A) CEGIKM (B) MORTVX (C) PRTVXZ (D) ZBDFHJ

13. Number of letters skipped in between adjacent letters in the series decrease by two. Which of the following series observes this rule?

(A) EPVAF (B) GPWBE (C) UCJOP (D) XFMQU

14. Number of letters skipped in between adjacent letters in the series decrease by one. Which of the following series observes this rule?

(A) DBPUY (B) DBUYP (C) DBYPU (D) DBYUP

15. Number of letters skipped in between adjacent letters in the series are multiples of 3. Which of the following series observes this rule?

(A) AFLPZ (B) GKOTZ (C) LORUX (D) DHLPU

16. Number of letters skipped in between adjacent letters in the series is in the order of 1^2, 2^2, 3^2. Which f the following series observes the rule given above?

(A) CEJT (B) EGLO (C) EGLP (D) RTWZ

17. Select the series in which the letters skipped in between adjacent letters decrease in order.

(A) AGMRV (B) HNSWA (C) NSXCH (D) SYDHK

18. Number of letters skipped between adjacent letters in the series is in the order of 2, 5, 7, 10. Which of the following series observes the rule given above?

(A) CEGLT (B) FNKOT (C) QTZHS (D) SYBEP

19. If it is possible to make a meaningful word with the second, the sixth, the ninth and the twelfth letters of the word 'CONTRIBUTION', which of the following will be the last letter of that word. If more than one such words can be made, give M as the answer and if no such words is there, gives X as the answer.

(A) O (B) N (C) M (D) X

20. If with the third, fourth, fifth, seventh and tenth letters of the word 'PERSONALITY', a meaningful word is formed, then first letters of the words is the answer, otherwise X is the answer.

(A) S (B) R (C) T (D) X

ASSIGNMENT-2

21. How many pairs of letters are there in the word 'BUCKET' which have as many letters between them in the word as in the English alphabet?
(A) One (B) Two (C) Three (D) Four

22. Two letters in the word 'PRESENCE' have as many letters between them in the word as in the alphabet and in the same order. Which one of the two letters comes earlier in the English alphabet?
(A) C (B) E (C) R (D) P

23. How many letters are there in the word 'CREATIVE', which have a as many letters between them in the word as in the English alphabet?
(A) 1 (B) 2 (C) 3 (D) 4

24. In the word 'PARADISE', how many pairs of letters are there which have as many letters between them in the word as in the English alphabet?
(A) None (B) One (C) Two (D) Three

25. How many pairs of letters in the word 'DABBLE' have as many letters between them in the word as in the English alphabet?
(A) Nil (B) One (C) Two (D) More than three

26. How many independent words can 'HEARTLESS' be divided into without changing the order of the letters and using each letter only once?
(A) 2 (B) 3 (C) 4 (D) 5

27. How many independent words can 'STAINLESS' be divided into without changing the order of the letters and using each letter only once?
(A) Five (B) One (C) Two (D) Three

28. From the word 'ASTOUNDER', how many independent words can be made without changing the order of the letters and using each letter only once?
(A) Five (B) One (C) Two (D) Three

29. From the word 'BEHIND', how many independent words can be made without changing the order of the letters and using each letter only once?
(A) 1 (B) 2 (C) 3 (D) 4

30. From the word 'LAPAROSCOPY', how many independent meaningful words can be made without changing the order of the letters and using each letter only once?
(A) 1 (B) 2 (C) 3 (D) 4

31. How many pairs of letters are there in the word EXPLOSION which have as many letters between them in the word as there are between them in the English alphabet?
(A) One (B) Two (C) Three (D) Four

32. How many pairs of letters are there in the word ATMOSPHERE which have as many letters between them in the word as there are between in the English alphabet?
(A) Two (B) Three (C) Four (D) Five

33. If all the letters of the word UNIVERSAL are arranged in alphabetic order then number of the positions of each letters is given according to new arrangement then what is difference between number positions of vowels and those of consonants?
(A) 19 (B) 17 (C) 21 (D) 20

34. How many pairs of letters are there in the word KINDNESS which have as many letters between them in the word as there are between in the alphabet?
(A) None (B) One (C) Two (D) Three

35. If with the first second, fifth and sixth letters of the word EXCLAIM a meaningful word is formed then third letter of the word is the answer. If no word is possible then Y will be your answer and if more than one such word can be made then given N as answer
(A) Y (B) N (C) C (D) M

36. How many pairs of letters are there in the word 'BUCKET' which have as many letters between them in the word as in the English alphabet?

(A) One (B) Two (C) Three (D) Four

37. How many pairs of letters are there in the word CREATIVE which have as many letters between them in the word as in the English alphabet?
(A) One (B) Two (C) Three (D) Four

38. How many pairs of letters are there in the word PRISON which have as many letters between them in the word as in the English alphabet?
(A) Nil (B) One (C) Two (D) More than three

39. How many pairs of letters are there in the word CLANGOUR which have as many letters between them in the word as in the English alphabet?
(A) One (B) Two (C) Three (D) Four

40. How many pairs of letters are there in the word DABBLE which have as many letters between them in the word as in the English alphabet?
(A) One (B) Two (C) Nil (D) More than three

PREVIOUS YEAR NTSE QUESTIONS

41. If the following series is written in reverse order, then which will be 12th letter to the left of 10th letter from your right?
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
(A) X (B) U (C) Y (D) W

42. If the first and 11th letters of the word 'DISTUREANCE' were interchanged, also the second and 10th letters and so on which would be the 7th letter from your right.
(A) R (B) B (C) A (D) U

Direction: (43 to 46): Read the data carefully and answer the questions.
LAP BUT CAR SON HID

43. If the positions of the 1st and the 3rd alphabets of each of the word are interchanged, which of the following would form meaningful words with the new arrangement?
(A) HID (B) SON (C) TUB (D) CAR

44. If the given words are arranged in the order as they would appear in a dictionary from the left to right, which of the following will be 4th from the left?
(A) LAP (B) BUT (C) CAR (D) SON

45. Which alphabet is one same place in two words given in the question?
(A) U (B) I (C) A (D) N

46. If second alphabet in each of the words is changed to next alphabet in the English alphabetical order, how many words having no vowels will be formed?
(A) One (B) Two (C) Three (D) More than three

47. How many independent words can 'HEARTLESS' be divided into without changing the order of the letters and using each letter only once?
(A) 2 (B) 3 (C) 4 (D) 5

48. How many independent words can 'STAINLESS' be divided into without changing the order of the letters and using each letter only once?
(A) Five (B) One (C) Two (D) Three

49. From the word 'ASTOUNDER' how many independent words can be made without changing the order of the letters and using each letter only once?
(A) Five (B) One (C) Two (D) Three

50. From the word 'BEHIND' how many independent words can be made without changing the order of the letters and using each letter only once?
(A) 1 (B) 2 (C) 3 (D) 4

CHAPTER

20 Logical Order

Logical Order

In such type of question, some words are given. The candidates is asked to arrange these words in a meaningful order. The order may be according to the age, size and need etc.

Examples

1. Arrange the following words in a meaningful order :

1. Death 2. Marriage 3. Education 4. Birth
5. Funeral

(A) 5, 1, 2, 3, 4 (B) 4, 2, 3, 1, 5 (C) 4, 3, 2, 5, 1 (D) 4, 3, 2, 1, 5

Solution

(D) First of all a man is born then he takes education; after this he is married. Then after some times he dies. After death the order is of Funeral. So correct order is 4, 3, 2, 1 and 5

2. Arrange the following words in a meaningful order

1. Doctor 2. Illness 3 Medicine 4. Medical hall
5. Consultation

(A) 2, 1, 5, 4, 3 (B) 3, 4, 5, 1, 2 (C) 2, 1, 5, 3, 4 (D) 4, 3, 5, 1, 2

Solution

(C) We know 'Illness' occurs first. Then the patients goes to 'Doctor' and after 'Consultation' 'Medicine' is prescribed. Then he goes to take medicine from a 'Medical Hall'

Hence correct meaningful order is

Illness, Doctor, Consultation, Medicine, Medical Hall

ASSIGNMENT-1

Directions : Arrange the words given below in a meaningful sequence

1. 1. Quench 2. Thirsty 3. Man 4. Well
5. Water

(A) 1, 3, 4, 5, 2 (B) 2, 3, 5, 4, 1 (C) 2, 3, 4, 1, 5 (D) 3, 2, 4, 5, 1

2. 1. Presentation 2. Recommendation 3. Arrival
4. Discussion 5. Introduction

(A) 5, 3, 4, 1, 2 (B) 3, 5, 4, 2, 1 (C) 3, 5, 1, 4, 2 (D) 5, 3, 1, 2, 4

3. 1. Tree 2. Seed 3. Flowers 4. Fruit
5. Plant

(A) 5, 2, 1, 3, 4 (B) 2, 5, 1, 4, 3 (C) 2, 5, 1, 3, 4 (D) 2, 5, 3, 1, 4

4. 1. Protect 2. Pressure 3. Relief 4. Rain
5. Flood

(A) 2, 4, 3, 1, 4 (B) 2, 4, 5, 1, 3 (C) 2, 5, 4, 1, 3 (D) 3, 2, 4, 5, 1

5. 1. Income 2. Status 3. Education 4. Well being
5. Job

(A) 3, 1, 5, 2, 4 (B) 1, 3, 2, 5, 4 (C) 1, 2, 5, 3, 4 (D) 3, 5, 1, 2, 4

6. 1. Heel 2. Shoulder 3. Skull 4. Neck
5. Knee 6. Chest 7. Thigh 8. Stomach
9. Face 10. Hand

(A) 3, 4, 7, 9, 2, 5, 8, 10, 6, 1 (B) 3, 9, 4, 2, 10, 6, 8, 7, 5, 1
(C) 2, 4, 7, 10, 1, 5, 8, 9, 6, 3 (D) 4, 7, 10, 1, 9, 6, 2, 5, 8, 3

7. 1. Rainbow 2. Rain 3. Sun 4. Happy
5. Child

(A) 4, 2, 3, 5, 1 (B) 2, 3, 1, 5, 4 (C) 4, 5, 1, 23 (D) 2, 1, 4, 5, 3

8. 1. Never 2. Sometimes 3. Generally 4. Seldom
5. Always

(A) 5, 2, 1, 3, 4 (B) 5, 2, 4, 3, 1 (C) 5, 3, 2, 1, 4 (D) 5, 3, 2, 4, 1

9. 1. Index 2. Contents 3. Title 4. Chapters
5. Introduction

(A) 2, 3, 4, 5, 1 (B) 3, 2, 5, 1, 4 (C) 3, 2, 5, 4, 1 (D) 5, 1, 4, 2, 3

10. 1. Chew 2. Relish 3. Pizza 4. Digest
5. Teeth

(A) 1, 2, 5, 3, 4 (B) 1, 3, 2, 5, 4 (C) 3, 1, 5, 2, 4 (D) 3, 5, 1, 2, 4

11. 1. Table 2. Tree 3. Wood 4. Seed
5. Plant

(A) 1, 2, 3, 4, 5 (B) 1, 3, 2, 4, 5 (C) 4, 5, 2, 3, 1 (D) 4, 5, 3, 2, 1

12. 1. Window 2. Walls 3. Floor 4. Foundation
5. Roof 6. Room

(A) 4, 1, 5, 6, 2, 3 (B) 4, 2, 1, 5, 3, 6
(C) 4, 3, 5, 6, 2, 1 (D) 4, 5, 3, 2, 1, 6

13. 1. Butterfly 2. Cocoon 3. Egg 4. Worm

(A) 1, 3, 4, 2 (B) 1, 4, 3, 2 (C) 2, 4, 1, 3 (D) 3, 4, 2, 1

14. 1. Rain 2. Monsoon 3. Rescue 4. Flood
5. Shelter 6. Relief

(A) 1, 2, 3, 4, 5, 6 (B) 1, 2, 4, 5, 3, 6
(C) 2, 1, 4, 3, 5, 6 (D) 4, 1, 2, 3, 5, 6

15. 1. Milky way 2. Sun 3. Moon 4. Earth
5. Stars

(A) 1, 4, 3, 2, 5 (B) 2, 3, 4, 5, 1 (C) 3, 4, 2, 5, 1 (D) 4, 3, 2, 5, 1

16. 1. Grass 2. Curd 3. Milk 4. Cow
5. Butter

(A) 1, 2, 3, 4, 5 (B) 2, 3, 4, 5, 1 (C) 4, 1, 3, 2, 5 (D) 5, 4, 3, 2, 1

17. 1. Foetus 2. Child 3. Baby 4. Adult
5. Youth

(A) 1, 2, 4, 3, 5 (B) 1, 3, 2, 5, 4 (C) 2, 3, 5, 4, 1 (D) 5, 4, 2, 3, 1

18. 1. Sea 2. Rivulet 3. Ocean 4. River
5. Glacier

(A) 5, 2, 1, 3, 4 (B) 5, 2, 4, 1, 3 (C) 5, 4, 2, 3, 1 (D) 5, 4, 3, 2, 1

19. 1. Doctor 2. Fever 3. Prescribe 4. Diagnose
5. Medicine

(A) 1, 4, 3, 2, 5 (B) 2, 1, 4, 3, 5 (C) 2, 1, 4, 3, 5 (D) 2, 4, 3, 5, 1

20. 1. Reading 2. Composing 3. Writing 4. Printing

(A) 1, 3, 2, 4 (B) 2, 3, 4, 1 (C) 3, 1, 2, 4 (D) 3, 2, 4, 1

ASSIGNMENT-2

21. 1. Hecto 2. Centi 3. Deca 4. Kilo
5. Deci

(A) 1, 3, 4, 5, 2 (B) 1, 5, 3, 4, 2 (C) 2, 5, 3, 1, 4 (D) 5, 2, 1, 4, 3

22. 1. Honey 2. Flower 3. Bee 4. Wax

(A) 1, 3, 4, 2 (B) 2, 1, 4, 3 (C) 2, 3, 1, 4 (D) 4, 3, 2, 1

23. 1. Country 2. Furniture 3. Forest 4. Wood
5. Trees

(A) 1, 3, 5, 4, 2 (B) 1, 4, 3, 2, 5 (C) 2, 4, 3, 1, 5 (D) 5, 2, 3, 1, 4

24. 1. Site 2. Plan 3. Rent 4. Money
5. Building 6. Construction

(A) 1, 2, 3, 6, 5, 4 (B) 2, 3, 6, 5, 1, 4
(C) 3, 4, 2, 6, 5, 1 (D) 4, 1, 2, 6, 53

25. 1. District 2. Village 3. State 4. Town
5. City

(A) 2, 4, 1, 5, 3 (B) 2, 1, 4, 5, 3 (C) 5, 3, 2, 1, 4 (D) 2, 5, 3, 4, 1

26. 1. Cutting 2. Dish 3. Vegetable 4. Market
5. Cooking

(A) 1, 2, 4, 5, 3 (B) 3, 2, 5, 1, 4 (C) 4, 3, 1, 5, 2 (D) 5, 3, 2, 1, 4

27. 1. Patient 2. Diagnosis 3. Bill 4. Doctor
5. Treatment

(A) 1, 4, 2, 3, 5 (B) 1, 4, 3, 2, 5 (C) 1, 4, 2, 5, 3 (D) 4, 1, 2, 3, 5

28. 1. Study 2. Job 3. Examination 4. Earn
5. Apply

(A) 1, 3, 2, 5, 4 (B) 1, 2, 3, 4, 5 (C) 1, 3, 5, 2, 4 (D) 1, 3, 5, 4, 2

29. 1. Atomic Age 2. Metallic Age 3. Stone Age 4. Alloy Age

(A) 1, 3, 4, 2 (B) 2, 3, 1, 4 (C) 3, 2, 4, 1 (D) 4, 3, 2, 1

30. 1. Book 2. Pulp 3. Timber 4. Jungle
5. Paper

(A) 2, 5, 1, 4, 3 (B) 3, 2, 5, 1, 4 (C) 4, 3, 2, 5, 1 (D) 5, 4, 3, 1, 2

31. 1. Sentence 2. Chapter 3. Letter 4. Book
5. Word

(A) 3, 2, 1, 5, 4 (B) 4, 2, 1, 5, 3
(C) 4, 1, 2, 3, 5 (D) 4, 2, 5, 1, 3

32. 1. Puberty 2. Adulthood 3. Childhood 4. Infancy
5. Senescence 6. Adolescence

(A) 2, 4, 6, 3, 1, 5 (B) 4, 3, 1, 6, 2, 5
(C) 4, 3, 6, 2, 1, 5 (D) 5, 6, 2, 3, 4, 1

33. 1. Mother 2. Child 3. Milk 4. Cry
5. Smile

(A) 1, 5, 2, 4, 3 (B) 2, 4, 1, 3, 5 (C) 2, 4, 3, 1, 5 (D) 3, 2, 1, 5, 4

34. 1. Post-box 2. Letter 3. Envelope 4. Delivery
5. Clearance

(A) 2, 3, 1, 4, 5 (B) 3, 2, 1, 4, 5 (C) 3, 2, 1, 5, 4 (D) 3, 2, 4, 5, 1

35. 1. Consultation 2. Illness 3. Doctor 4. Treatment
5. Recovery

(A) 2, 3, 1, 4, 5 (B) 2, 3, 4, 1, 5 (C) 4, 3, 1, 2, 5 (D) 5, 1, 4, 3, 2

36. 1. Euphoria 2. Happiness 3. Ambivalence 4. Ecstasy
5. Pleasure

(A) 4, 1, 3, 2, 5 (B) 3, 2, 5, 1, 4 (C) 2, 1, 3, 4, 5 (D) 1, 4, 2, 5, 3

37. 1. Elephant 2. Cat 3. Mosquito 4. Tiger
5. Whale

(A) 5, 3, 1, 2, 4 (B) 1, 3, 5, 4, 2 (C) 3, 2, 4, 1, 5 (D) 2, 5, 1, 4, 3

38. 1.Site 2. Plan 3. Rent 4. Money
5. Building

(A) 2, 3, 5, 1, 4 (B) 4, 1, 2, 5, 3 (C) 1, 2, 3, 5, 4 (D) 3, 4, 2, 5, 1

39. 1. Mother 2. Child 3. Milk 4. Cry
5. Smile

(A) 3, 2, 1, 5, 4 (B) 2, 4, 1, 3, 5 (C) 1, 5, 2, 4, 3 (D) 2, 4, 1, 3, 5

40. 1. Punishment 2. Prison 3. Arrest 4. Crime
5. Judgment

(A) 4, 3, 5, 2, 1 (B) 4, 3, 5, 1, 2 (C) 2, 3, 1, 4, 5 (D) 5, 1, 2, 3, 4

PREVIOUS YEAR NTSE QUESTIONS

Direction (41 to 45) Arrange the given words in the sequence in which they occur in the dictionary and then choose the correct sequence from the options.

41. (I) Cloth (II) Cinema (III) Chronic (IV) Christmas (V) Create

(A) (IV), (III), (II), (I), (V) (B) (I), (II), (III), (IV), (V)
(C) (IV), (II), (III), (V), (I) (D) (IV), (II), (III), (I), (V)

42. (I) Dialogue (II) Diagram (III) Diameter (VI) Diagnose (V) Dial

(A) (IV), (II), (V), (I), (III) (B) (II), (IV), (V), (I), (III)

(C) (I), (IV), (II), (V), (III) (D) (I), (II), (III), (IV), (V)

43. (I) Navigate (II) National (III) Naughty (IV) Nation (V) Narrow
(A) (V), (IV), (III), (II), (I) (B) (V), (IV), (II), (III), (I)
(C) (I), (II), (III), (IV), (V) (D) (V), (II), (III), (IV), (I)

44. (I) Peerless (II) Penal (III) Petroleum (IV) Pedestrian (V) Pharmacy
(A) (IV), (I), (II), (V), (III) (B) (I), (II), (V), (IV), (III)
(C) (IV), (I), (II), (III), (V) (D) (IV), (I), (V), (III), (II)

45. (I) Unstable (II) Unship (III) Unsafe (IV) Unseat (V) Unshared
(A) (I), (III), (II), (IV), (V) (B)(III), (IV), (V), (II), (I)
(C) (I), (IV), (V), (II), (III) (D) (V), (IV), (III), (II), (I)

Direction (46 to 50) Select the combination of numbers so that letters arranged accordingly will form a meaningful

46. B L I P U S H
1 2 3 4 5 6 7
(A) 4, 5, 1, 2, 6, 3, 7 (B) 4, 5, 3, 2, 1, 6, 7
(C) 1, 2, 3, 4, 6, 6, 7 (D) 4, 5, 1, 2, 3, 6, 7

47. H L R A O C S
1 2 3 4 5 6 7
(A) 1, 2, 3, 4, 5, 6, 7 (B) 7, 6, 5, 1, 4, 2, 3
(C) 7, 6, 1, 5, 2, 4, 3 (D) 7, 6, 5, 1, 2, 4, 3

48. I K E S R T
1 2 3 4 5 6
(A) 6, 4, 5, 1, 2, 3 (B) 4, 6, 5, 1, 2, 3
(C) 6, 5, 4, 3, 2, 1 (D) 1, 2, 3, 4, 5, 6

49. M B L A L R U E
1 2 3 4 5 6 7 8
(A) 7, 1, 2, 6, 8, 3, 5, 4 (B) 1, 2, 3, 4, 5, 6, 7, 8
(C) 8, 7, 2, 1, 4, 5, 3, 6 (D) 1, 2, 3, 6, 7, 8,4, 5

50. R G O S I E A N
1 2 3 4 5 6 7 8
(A) 3, 8, 7, 4,5, 6, 1,2 (B)3, 2, 1, 5, 8, 7, 4,6
(C) 3, 1, 2, 8, 7, 4, 5, 6 (D) 3, 1, 2, 7, 8, 5, 4, 6

CHAPTER

21

Arithmetical Reasoning

Arithmetical Reasoning

In this chapter the question based on age, diagrams venn diagrams and general calculation etc. are asked. Hence thorough knowledge of Arithmetic and Algebra etc is essential.

Examples

1. In a group of dogs and crows the number of legs is more than 2 times the number of heads by 20. What is the number of dogs?

(A) 10 (B) 20 (C) 25 (D) 33

Solution

(A)

Let the no. of dogs be x and that of crows be y.

$\therefore$ Total number of legs = 4x+2y

And total number of heads = x+y

$\therefore$ $4x+2y = 2(x+y)+20$

$\Rightarrow$ $4x+2y = 2x+2y+20$

$\Rightarrow$ $4x+2y-2x-2y = 20$

$\Rightarrow$ $2x=20$

$\therefore$ $x = \frac{20}{2} = 10$

ASSIGNMENT-1

1. In a caravan in addition to 50 hens are there are 45 horses and 8 camels with some keepers. If the total number of feet are 224 more than the heads in the caravan, what is the number of keepers?

(A) 8 (B) 15 (C) 12 (D) 10

2. In a tennis tournament each of six players will play with every other player exactly once. How many matches will be played during the tournament?

(A) 12 (B) 30 (C) 36 (D) 15

3. A monkey is trying to reach the top of a pole which is 30 metres high from the ground. After climbing every 4 metres it slips down 2 metres. How many attempts will it take to reach the top of the pole?

(A) 14 (B) 15 (C) 17 (D) 16

4. Initially A has ₹ 10 more than B. A gives one half of his money to B. B reciprocates and gives only half of his money to A. Now A has ₹ 20 more than B. How much money do A and B have total in the beginning?

(A) 70 (B) 80 (C) 90 (D) 120

5. A number of two digits exceeds four times the sum of its digits by 3. If the number is increased by 18, the result is the same as the number formed by reversing the digits. Find the number.

(A) 35 (B) 57 (C) 49 (D) 42

6. Sunita has the same number of sisters as she has brothers; but her brothers Rohan has twice as many sisters as he has brothers. How many children are there in the family?

(A) 7 (B) 6 (C) 5 (D) 8

7. In a game of musical chairs, 16 girls are participating. Every round of music will have duration of 2 minutes. An interval of 5 minutes is given after every five rounds of music. How much time will it take to complete the game?

(A) 47 min (B) 45 min (C) 35 min (D) 40 min

8. In an examination, a student scores 4 marks for every correct answer and loses 1 mark for every wrong answer. If he attempts all 75 questions and scores 125 marks, how many questions did he answer correctly?

(A) 35 (B) 42 (C) 46 (D) 40

9. A bird shooter was asked how many birds he had in the bag. He replied that there were all sparrows but six, all pigeons but six, and all ducks but six. How many birds did he have in all?

(A) 9 (B) 18 (C) 27 (D) 19

10. A box contains four small boxes. Each of the four boxes contains three smaller boxes. In each box there are two boxes. How many boxes are there altogether?

(A) 39 (B) 40 (C) 42 (D) 41

11. In a cricket match, five batsman A, B, C, D and E scored an average of 36 runs, D scored 5 more than E, E scored 8 fewer than A, B scored as many as D and E combined, Band C scored 107 between them. How many runs did E score?

(A) 62 (B) 45 (C) 36 (D) 20

12. In a class there are 18 boys, who are over 175 cm tall. If these constitute $\frac{3}{4}$ of the boys and the total number of boys is $\frac{2}{3}$ of the total number of students in the class, what is the number of girls in the class?

(A) 6 (B) 9 (C) 18 (D) 12

13. How many revolutions will a toy wheel of 28 cm in diameter make in travelling a distance of 880 cm?

(A) 100 (B) 88 (C) 50 (D) 10

14. The numerator and the denominator of a positive fraction are in the ratio of 1 : 5. A new fraction is formed by subtracting 2 from the numerator and adding 5 to the denominator. The difference between the original fraction and the new fraction is $\frac{1}{10}$. What is the numerator of the original fraction?

(A) 25 (B) 4 (C) 20 (D) 5

15. Bharat left his entire property to his wife, son and daughter, and a servant. His son and daughter got half the property sharing in the ratio of 4:3, if his wife got twice as much as the daughter and the servant got ₹1000. What is the value of entire property?

(A) 3500 (B) 7000 (C) 10500 (D) 14000

16. There are three strings of different lengths, which together is 35 cm. The smallest is $\frac{2}{3}$ of the middle one, which is $\frac{4}{5}$ of the longest string. What is the length of the longest string?

(A) 12 cm (B) 22 cm (C) 24 cm (D) 15 cm

17. Anil has $\frac{2}{3}$ as much money as Sunil has and Sunil has $1\frac{1}{2}$ times as much money as Pravin has. If Pravin has Rs. 180, how much money does Anil have?

(A) 360 (B) 180 (C) 90 (D) 60

18. In a college union election only two candidates contested. A candidate secures 41% of the votes, but is defeated by other candidate by 1440 votes. Totally, how many students did cast their votes?

(A) 2880 (B) 4320 (C) 8000 (D) 5600

19. A vendor sells 40% of his mango stock and throws away 20% of the remainder. Next day he sells 50% of the remainder and throws away the rest. What percent of his fruit does the vendor throw?

(A) 24 (B) 30 (C) 36 (D) 40

20. To number the pages of an encyclopedia the printer used 2989 digits. How many pages did the book contain?

(A) 924 (B) 1024 (C) 1089 (D) 1009

ASSIGNMENT-2

21. Ashok spends $\frac{1}{8}$ of the money for mangoes and $\frac{1}{7}$ of the remaining money for sweets. With the leftover money he goes to a bakery and spends $\frac{1}{6}$ of the money to buy bread for his father, and with the remaining money he spends $\frac{1}{5}$ and buys flowers for his sister and from the amount left over he buys a cricket ball by spending $\frac{1}{4}$ of the amount. Now he is left ₹ 48. How much money did Ashok have in the beginning?

(A) ₹ 90 (B) ₹ 80 (C) ₹ 128 (D) ₹ 112

22. A certain number of camels and an equal number of men are going somewhere. Half of the owners are on the back of their camels, while the remaining ones are walking along leading their camels. If the number of legs walking on the ground is 70, how many camels are there?

(A) 12 (B) 14 (C) 16 (D) 10

23. Two poles X and Y each of 16 cm high are placed parallel to each other on a plan ground. Frog A is positioned at the top of pole X, whereas frog B is positioned at the ground level near the pole Y. Frog A comes 2 cm down the pole X during the daytime and goes up 1 cm during the night every day, whereas frog B goes up 2 cm up the pole Y during the day and slips down 1 cm during the night every day. After how many days will the two frogs be at the same height above the ground level?

(A) 7 (B) $6\frac{1}{2}$ (C) $7\frac{1}{2}$ (D) 9

24. Ashok working in a bank can claim ₹ 15 for each kilometer which he travels by taxi and ₹ 5 for each kilometer when he goes in his own car. If Ashok claims ₹ 500 in 1 week for traveling 80 km, how many km, did he travel by taxi?

(A) 10 km (B) 15 km (C) 30 km (D) 40 km

25. A group of 1200 person consisting of professors and students joined for New Year celebrations. For every 15 students there is one professor. What is the total number of professors participated in the party?

(A) 75 (B) 80 (C) 70 (D) 65

26. In a bundle of 154 shirts, there are three less white shirts than red shirts, and five more white shirts than green shirts. How many red shirts are there?

(A) 52 (B) 55 (C) 40 (D) 47

27. A monkey ate 100 idlis in 5 days, each day eating six more than the previous day. How many did it eat on the last day?

(A) 23 (B) 26 (C) 35 (D) 32

28. A worker is paid ₹ 100 per day for attending office and fined ₹ 50 on the day of his absence. If in a month of 30 days he earn ₹ 2400, how many days was he absent.

(A) 12 (B) 6 (C) 8 (D) 4

29. In a box of 100 milk chocolates, there are four times as many 5 stars and five times as many Diary milk as there are Amul chocolates. If the cost of each Amul, 5 star and Dairy milk are in the ratio of 2 : 3 : 4, what could be the cost of box of chocolates.

(A) Rs.300 (B) Rs.260 (C) Rs.340 (D) Rs. 400

30. a : b : c :: 2 : 4 : 3. Find the ratio of the square of their average to the average of their squares?

(A) 8 : 3 (B) 27 : 29 (C) 23 : 25 (D) 25 : 27

31. Amit spends ₹ 100 on articles worth ₹ 2 each and ₹ 3 each. If he buys 42 articles, how many articles worth ₹ 3 has Amit bought?

(A) 13 (B) 14 (C) 16 (D) 26

32. A man and a woman 63 km apart from each other, start travelling towards each other at the same time. If the man covers 4 km/hr and the women 3 km/hr, how far will the woman have travelled when they met?

(A) 35 km (B) 36 km (C) 21 km (D) 27 km

33. There are four men of different heights. The fourth man is the tallest and the first man is the shortest. If the difference in heights among the first three men was 2 in and the difference between the third and the fourth man was 6 in and the average height of all the four men was 74 in, how tall was the fourth man?

(A) 78 in (B) 80 in (C) 70 in (D) 74 in

34. Four numbers sum up to given 310. If they are in the ratio of 3 : 2 : 1/5 : 1, which of the following is the smallest number?

(A) 10 (B) 62 (C) 150 (D) 31

35. Two friends A and B start walking around a circular track in the same direction. Both of them start from the same point at 7:00 AM. A completes one round in 4 min, whereas B takes 5 min to complete one round. At what time do A and B cross each other for the first time?

(A) 7:15 AM (B) 7:20 AM (C) 7:30 AM (D) 7:40 A<

36. Two friends P and Q start walking around a circular track from same point at the same time. P walks in the clockwise direction, whereas Q walks in the anticlockwise direction. P completes four rounds in one hour. Q completes five rounds in one hour. How many times do P and Q meet each other if both of them walk for 40 min?

(A) 3 times (B) 4 times (C) 6 times (D) 8 times

37. In a circular pond, a fish starts from a point on the edge, swims 600 m North to reach another point on the edge, turn east and swims 800 m to reach yet another point on the edge. What is the diameter of the pond?

(A) 600 m (B) 700 m (C) 800 m (D) 1000 m

38. Sumit says if Sanjay gives me ₹ 40, he will have half as much as Sunil, but if Sunil gives me ₹ 40, then the three of us will have the same amount. What is the total amount of money that Sumit and Sunil have with them?

(A) ₹ 240 (B) ₹ 360 (C) ₹ 420 (D) ₹ 396

39. Anita rode her bicycle from home to school, at an average speed of 15 km/hr. She returned home from school by walking at an average speed of 5 km/hr. What was her average speed for the round trip if she took the same route in both directions?

(A) 7.5 km/hr (B) 10 km/hr (C) 12.5 km/hr (D) 13 km/hr

40. A petrol pump dealer has tampered with the flow meter which shows false reading that is 10% more than the amount of fuel supplied. If the dealer buys petrol at ₹ 25 per litre and sells it at ₹ 30 per litre, what is his percentage gain?

(A) 20% (B) $16\frac{2}{3}\%$ (C) $34\frac{1}{3}\%$ (D) 32%

PREVIOUS YEAR NTSE QUESTIONS

41. 2 mangoes = 6 apple, 2 apple = 8 bananas, so instead of buying 1 mango, how many bananas are available?

(A) 12 (B) 24 (C) 6 (D) 8

42. At the end of a meeting, the ten people present all shake hands with each other once. How many handshakes will there be altogether?

(A) 10 (B) 45 (C) 9 (D) 25

43. A person starts from a point A and travels 6 km westwards to B and then turns right and travels half of that distance to reach C. He again turns right and travels 5/2 times the distance he covered between A and B and D. The shortest distance between the starting point and the last position is (in km).

(A) $\sqrt{60}$ (B) $\sqrt{80}$ (C) $\sqrt{90}$ (D) $\sqrt{75}$

44. A total of 380 coins of 25 paise and 50 paise coins make a sum of Rs 130. The number of 50 paise coins is:

(A) 140 (B) 180 (C) 120 (D) 110

45. The unit digit of $(168)^{156}$ is:

(A) 8 (B) 6 (C) 4 (D) 2

46. There are 42 students admitted to a class. Some students can speak only English and some students can speak only Tamil. Fifteen students can speak both Tamil and English. If the number of students whose can speak English is 20, then how many students can speak Tamil?

(A) 35 (B) 20 (C) 27 (D) 37

47. In a city 20% of the adults are illiterate while 90 % of the children are literate. If the ratio of the adults to that of the children is 3 : 5, then the percent of the population of illiterate is:

(A) 13.75 (B) 55 (C) 30 (D) none of these

48. The average age of three persons is 12 year. Their ages are in the proportion of 1 : 3 : 5 What is the age in years of the youngest one among them

(A) 4 (B) 12 (C) 9 (D) 8

49. 13 sheep's and 9 pigs were bought for Rs. 1291.85.If the average price of a sheep be Rs,74 What is the average price of a pig

(A) 34.65 (B) 48.40 (C) 52.85 (D) 36.65

50. What is the sum of the first 25 natural odd numbers?

(A) 225 (B) 425 (C) 625 (D) 525

CHAPTER

22 Alphabet Test

Alphabet Test

In the alphabet test words are arranged in alphabetical order according to dictionary letter a, b, c, ….to z. Mean a letter will come first and z will come last. This alphabet test will happen in words too

Examples

1. (A) Arise (B) Arose (C) Artistic (D) Arrange

Solution

(A)

Given four words, all starting with A so we will see the second letter it is also same then we will see the third letter I will come first so word Arise will be first in dictionary second word will be Arose and the third will be Artistic and fourth will be Arrange.

ASSIGNMENT-1

Direction (1 to 20) : Arrange the given words in the alphabetical order and point the one that comes first.

1. (A) Project (B) Property (C) Page (D) Paper
2. (A) Render (B) Reciprocate (C) Reply (D) Revive
3. (A) Mint (B) Mount (C) Mass (D) Man
4. (A) Cotton (B) Citra (C) Cot (D) Cattle
5. (A) Ass (B) Acid (C) Ask (D) After
6. (A) Character (B) Champion (C) Coagulate (D) Compassion
7. (A) Irritate (B) International (C) Intimidate (D) Invert
8. (A) Rubbish (B) Rotary (C) Roit (D) Rope
9. (A) Nimble (B) Negative (C) Nostalgia (D) Negligence
10. (A) Temperature (B) Telescope (C) Taxi (D) Taxation
11. (A) Liquidity (B) Limit (C) Liquor (D) Lime

12.	(A) Exit	(B) Execute	(C) Excitement	(D) Exile
13.	(A) Trick	(B) Terminate	(C) Tidy	(D) Tarnish
14.	(A) Grammar	(B) Glitter	(C) Genetic	(D) Gradient
15.	(A) Reliable	(B) Represent	(C) Recourse	(D) Resource
16.	(A) Heredity	(B) Hesitate	(C) Hire	(D) Horse
17.	(A) Cram	(B) Carriage	(C) Crab	(D) Crown
18.	(A) Neglect	(B) Narrate	(C) Noun	(D) Night
19.	(A) Entry	(B) Emblem	(C) Energy	(D) Enumeration
20.	(A) Apply	(B) Apple	(C) Appreciate	(D) Appropriate

ASSIGNMENT-2

Directions (21-40) : In each of the following Questions, find which one word cannot be made from the letters of the given word.

21. ENTHUSIASTICALLY
(A) SATIATE (B) HELMINTH (C) SHALE (D) TANTALUS

22. CONCENTRATE
(A) CENTRE (B) CONCERN (C) REASON (D) TREAT

23. INTRANSIGENT
(A) STAIN (B) GRATE (C) TRACE (D) RESIGN

24. MAGNETIC POLE
(A) MENACE (B) POLEMIC (C) REGISTER (D) GENIAL

25. PERPETUATION
(A) REPUTE (B) RETAIN (C) PIPETTE (D) PENANCE

26. ESTRANGEMENT
(A) ENTANGLE (B) ENTREAT (C) GERMAN (D) TANGENT

27. CLASSIFICATION
(A) FICTION (B) ACTION (C) NATION (D) LIAISON

28. PHOTOSYNTHETIC
(A) THOSE (B) SCENT (C) PRONE (D) COTTON

29. QUESTIONNAIRE
(A) QUESTOR (B) QUEUE (C) QUINATE (D) QUERIES

30. FLEXIGERATOR
(A) TAXI (B) GREATER (C) LARGER (D) XEROX

31. PARAPHERNALIA
(A) RENAL (B) PRAISE (C) RAPHAEL (D) PEAR

32. CHOREOGRAPHY
(A) OGRE (B) PHOTOGRAPHY (C) GRAPH (D) GEOGRAPHY

33. PHARMACEUTICAL
(A) PRACTICE (B) METRIC (C) RHEUMATIC (D) CRITICAL

34. DISSEMINATION
(A) INDIA (B) NATIONS (C) MENTION (D) ACTION

35. COMMENTATOR
(A) TART (B) COMMON (C) MOMENTS (D) COSMOS

36. CARPENTER
(A) NECTAR (B) CARPET (C) PAINTER (D) REPENT

37. TRIBUNAL
(A) LATIN (B) BRAIN (C) URBAN (D) TRIBLE

38. TEMPERAMENT
(A) METER (B) PETER (C) TENTR (D) TESTER

39. CONTEMPORARY
(A) PARROT (B) COMPANY (C) CARPENTER (D) PRAYER

40. ENDEAVOUR
(A) DROVE (B) DEVOUR (C) DROWN (D) ROUND

PREVIOUS YEAR NTSE QUESTIONS

41. If RAJU = 11 -12 -13 -14 and JUNK =13- 14- 10- 9 then RANK =
(A) 9 – 10- 11-12 (B) 10- 11- 12-9 (C) 11- 12-10 -9 (D)12-10-14-9

42. If WORK = 4 -12-9-16 then WOMAN =
(A) 4-12-14-16-13 (B) 4-26-14-13-12(C) 23-12-26-14-13 (D) 23-15-13-4-14

Direction (43 to 44) : You are given alphabets from A to Z Find out which of the letter series follows the given rule.

43. Rule. The letters are not according to a general rule.
(A) CEGIKM (B) MORTVX (C) PRTVXZ (D) ACEGIK

44. Rule: Number of letters skipped in between adjacent letter in the series is odd
(A) EIMQV (B) FIMRX (C) BDHLR (D) MPRUX

45. If the following words are arranged according to the dictionary order then which will be the second word in that order?
(A) Expound (B) Exposure (C) Expulsion (D) Expose

46. If it is possible to make a meaningful word from first, fifth, seventh and eleventh letters of the word SCCENTRICITY then which will be the third letter of the word? If it is possible to make more than one world then answer will be M and if the world formation is not possible then the answer will be X
(A) X (B) R (C) N (D) M

47. How many such pairs of letters are there in the word 'RAZORS' each of which has as many letters between them as in the English alphabet series:
(A) None (B) One (C) Two (D) Three

48. Arrange the following according to dictionary and determine the one at 4^{th} place.
(A) Zamaica (B) Zidane (C) Zeast (D) Zinedine

49. If the words INTIMATION, INFORMATION, INTEREST, INTERROGATION and INSTIGATION are arranged according to the dictionary, which will be the fourth letter of the last word ?
(A) O (B) A (C) R (D) T

50. Which name will come at 3^{rd} place in a telephone directory from the following given names?
(A) AMIT (B) AMINA (C) ALOK (D) ABHIMAN

CHAPTER

23

Analytical Reasoning

Analytical Reasoning

In this type of questions some persons or things are given with some information. Out of which something is asked. The candidate for this, should arrange the items according to the given information and then form the chart he should find the answer.

The questions may be of many types. These types are explained in this chapter one by one.

Example

1. (i) P, Q, R R, S and T are sitting in a closed circle facing the centre.

   (ii) R is just left of T.

   (iii) P is between S and T.

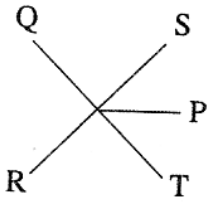
   Then who is just left to R?

   (A) T (B) P (C) Q (D) S

Solution :

(C) This seating arrangement is shown in the diagram.

Hence Q is just left of R.



ASSIGNMENT – 1

Directions (1-5) : Study the following information carefully and answer the following question given below it:

(i) A, B, C, D, E, F and G are seven members of the family

(ii) Six of them have a difference profession of Accountant, Lawyer, Teacher, Manager, Doctor, Engineer and one is a student.

(iii) There are two married couples in the family.

(iv) A and F's professions are Account and Doctor respectively

(v) D is the father of B and the grandfather of G and is an Engineer

(vi) No lady is either an Engineer or a Lawyer.

(vii) G, who is a student, is the grandson of E.

1. How is C related to G?

   (A) Mother (B) Aunt (C) Sister (D) None of these

2. What is E's profession?
   (A) Teacher (B) Manager
   (C) Teacher of Manager (D) Doctor
3. How many male members are there in the family?
   (A) 4 (B) 5 (C) 3 (D) None of these
4. Which one of the following is a married couple
   (A) BE (B) BD (C) BD (D) DE
5. How is F related to G?
   (A) Brother (B) Sister (C) Uncle (D) None of these

Directions (6-10) : Read the following information carefully and answer the questions given below:

(i) Six person P, Q, R, S, T and U are sitting in two rows, three in each
(ii) T is not at the end of any row.
(iii) S is second to the left of U
(iv) R is the neighbor of T, is sitting diagonally opposite to S.
(v) Q is the neighbor of U

6. Which of the following are sitting diagonally opposite to each other
   (A) U and R (B) S and P (C) P and R (D) P and U
7. Who is facing Q?
   (A) P (B) R (C) T (D) S
8. Which of the following are in the same row?
   (A) P and T (B) T and S (C) R and Q (D) P and Q
9. Which of the following are in one row?
   (A) UQR (B) RTQ (C) SQU (D) PTU
10. After interchanging the seats with T, who will be the neighbours of S in the new position
   (A) R and P (B) U and Q (C) only Q (D) only R

Directions (11-14) : In a parking lot in Mount road there are six parking slots in a row numbered 1 to 6 consecutively. Exactly five cars of five different colours blue, green, maroon, red and white are to be parked in the slots according to the following conditions:

(a) The red car must be parked in slot 3.
(b) The blue car must be parked in the slot next to slot in which the white car is parked
(c) The green car cannot be parked in a slot next to the slot in which the maroon car is parked

11. If the white car is parked in slot 2, which of the following must be true?
   (A) The blue car is parked in a slot next to the maroon car.
   (B) The maroon car is parked next to red.
   (C) The green car is parked next to blue.
   (D) None of the cars is parked in slot number 5
12. In which of the following slots, the maroon car cannot be parked?
   (A) 1 (B) 2 (C) 4 (D) 5
13. If the green car is parked in slot 2, which of the following slots remains vacant
   (A) 1 (B) 3 (C) 4 (D) 5
14. Which of the following must be true of any acceptable parking arrangement?
   (A) There is an empty slot next to the green car
   (B) There is an empty slot next to the white car

(C) Either the blue car or the white car is parked in a slot next to 3

(D) One of the cars is parked in slot number 6

Directions (15-17): The membership of two clubs namely A and B must be chosen by a group of seven persons Geetha (G), Haritha (H), Indu (I), Jahanvi (J), Kavitha (K), Lavana (L) and Malini (M).

(a) Each of the seven people must be member of either A or B

(b) No one can be member of both clubs simultaneously.

(c) Malini cannot be in a club Geetha or Jahnavi

(d) Haritha cannot be with Indu

15. If Haritha is a member of club A, which of the following must be true?

(A) Malini is a member of club A (B) Geetha is a member of club B

(C) Indu is a member of club B (D) Lavanya is a member of club A

16. If Lavanya is not a member in a club with Kavitha or Indu, which of the following cannot be true?

(A) Malini is in a club with Indu (B) Geetha is in a club with Haritha

(C) Haritha is in a club with Kavitha (D) Indu is in a club with Kavitha

17. If exactly two people are members of club A, which of the following must be one of the two?

(A) Geetha (B) Malini (C) Jahanvi (D) Kavitha

Directions (18-20) : These questions are based on the following information

Each of eight person A through H likes a different colour among- Red, Blue, Black, White, Pink, Orange, yellow and Indigo. The information known is

(a) A likes neither Red nor Indigo

(b) Either B or C likes Yellow

(c) E likes either Pink of Indigo

(d) Either G or H likes White

(e) B likes Black while D does not like Blue

(f) F and G like Pink and Blue in any order.

18. Who likes Red Colour?

(A) B (B) C (C) D (D) H

19. Which of the following must be true

(A) B likes Yellow (B) F likes Pink (C) A likes Orange (D) G likes Pink

20. What are the colours that A and E like?

(A) Red, Indigo (B) Red, Pink (C) Black, Indigo (D) Orange, Indigo

ASSIGNMENT-2

Direction (21 to 25): These questions are based on the following information.

A, B, C, D, E and F are six persons travelling together in a boat. Three of them B, C and E are women and the rest are men. However A, B, C and E are all vegetarian and D and F are non vegetarian. Finally, B, E and F know swimming while the rest do not know how to swim.

21. In a group, who is the non vegetarian male who does not know swimming?

(A) D (B) F (C) A (D) E

22. In a group, who is the non-vegetarian male who knows swimming?

(A) A (B) B (C) C (D) None of these

23. How many of the vegetarian males in the group known swimming?

(A) None (B) Some (C) All (D) Can't say

24. In the group who is the vegetarian female who knows swimming?

(A) C (B) B (C) A (D) F

25. In the group who is the only female who does not know swimming?

(A) A (B) B (C) C (D) None of these

Directions (26 to 29) : Three brothers Ranjit, Sailesh and Tushar are married to three sisters Archana, Bhargavi and Chandrika, but not in the same order.

(a) Chandrika has long hair.
(b) The dancer (one of the sisters) lives in Goa.
(c) The one married to Tushar is very fair.
(d) The sister with long hair does not like to write letters.
(e) Archana calls her dancer sister very Sunday.
(f) The sister in Pune is married to Tushar.
(g) Tushar's phone bills are high.
(h) Sailesh is married to the dancer.
(i) Chandrika receives a letter from Goa office in a week.
(J) The sister who does not like to write letters lives in Mysore.

26. Which sister lives in Pune?
(A) Archana (B) Bhargavi (C) Chandrika (D) Data insufficient

27. Who lives in Goa?
(A) Ranjit (B) Sailesh (C) Archana (D) Chandrika

28. Who is Chandrika's husband?
(A) Ranjit (B) Sailesh (C) Tushar (D) Data incomplete

29. Who is the dancer?
(A) Archana (B) Bhargavi
(C) Chandrika (D) Cannot be determined

Directions (30 to 33) : A manager who has exactly four projects F, G, H and I to undertake in a given month has made the following determinations:

(I) F has priority over G.
(II) H has priority over I.
(III) If one project has priority over another, the project with priority must be started earlier than the other one.

30. Given only the terminations above, each of the following is a possible sequence in which the four projects could be started except:
(A) F, G, H, I (B) F, H, G, I (C) H, F, I, G (D) H, G, F, I

31. If each of the projects takes equally long to complete it must be true that:
(A) F is completed before H is completed (B) H is completed before I is completed
(C) F is completed before I is completed (D) H is completed before G is completed

32. There would be exactly one order in which the four projects would have to be started if it were determined that:
(A) F has priority over H (B) F has priority over I
(C) H has priority over G (D) I has priority over F

33. Which of the following pairs of additional determinations would not conflict with the priorities initially determined ?
(A) F has priority over I and Hi has priority over G
(B) G has priority over H and H has priority over F
(C) G has priority over H and I has priority over F
(D) G has priority over I and I has priority over F

Directions (34 to 38) : Five executives –A, B, C, D and E of a European corporation hold a conference in Rome:

(i) A converses in Spanish and Italian. (ii) B converses in Spanish and English.

(iii) C converses in French and Spanish. (iv) E, a native Italian can also converse in French.

34. Which of the following, can act as an interpreter when C and D wish to confirm ?
(A) A only (B) B only
(C) A or B (D) Any of the other three executives

35. Which of the following cannot converse without an interpreter?
(A) B and E (B) A and B (C) A and C (D) B and D

36. Besides E, which of the following can converse with D without an interpreter?
(A) A, B and C (B) A only (C) A and B (D) B only

37. Of the languages spoken at this conference, which are the two least common?
(A) English and Spanish (B) English and French
(C) Italian and Spanish (D) English and Italian

38. If a sixth executive is brought in, to be under stood by the maximum number of the original five, he should fluent in:
(A) English and French (B) Italian and English
(C) French and Italian (D) Italian and Spanish

Directions (39 to 40): A loop bus has exactly six stops on its route. The bus first stops at stop one and then at stops two, three, four, five and six in that order. After leaving the stop six, the bus returns to stop one and continues around the loop again. The stops are at six building –G, H, J, K, L and M:
(i) L is stop three. (ii) H is stop six.
(iii) K is the stop immediately before M. (iv) J is the stop immediately before G.

39. If J is the stop four, which of the following must be the stop immediately before L?
(A) K (B) M (C) J (D) G

40. If G is the stop two, which of the following must be the stop immediately before H?
(A) G (B) L (C) K (D) M

PREVIOUS YEAR NTSE QUESTIONS

Direction (41 to 43) : Questions are based on the information given below Read the information carefully and find out the correct answer from the four alternative and write its alternative number of your answer sheet against the proper question number- Ramesh, Abhi, parth, Komal, Vaibhav and Birju are the students of IX class. Ramesh and Abhi like maths, science with Sanskrit, Parth and Komal likes Maths, Hindi with English and Science. Vaibhav and Birju like Sanskrit and Hindi with Maths.

41. Which subject opted by the most students
(A) Sanskrit (B) Maths (C) Hindi (D) English

42. Which subject opted by the least student
(A) Science (B) Sanskrit (C) English (D) Hindi

43. How many student opted Sanskrit subject
(A) 5 (B) 4 (C) 2 (D) 3

Direction (44-46) Read the following statement carefully and answer the questions. Write the correct alternative number on your answer sheet.

Ramu, Ganesh, Satish, Umesh and Ramesh are five brothers, Ganesh is 6 year younger to Ramu and 5 years to Ramesh, Ramu was born in 1985. Ramu is 4 year younger to Satish and 3 year elder to Umesh.

44. Who is eldest among five brothers?
(A) Ramesh (B) Satish (C) Ganesh (D) Umesh

45. Who is youngest among five brothers?

(A) Ramesh (B) Umesh (C) Ganesh (D) Ramu

Direction (46 to 49) Read the information carefully and answer the questions that follow.

A Blacksmith has Five iron articles A, B, C, D, E each having a different weight

(i) A weights twice as much as B (ii) B weight four and half times as much as C.

(iii) C weights half as much as D (iv) D weights half as much as E

(v) E weights less than A but more than C.

46. Which of the following lightest in weight?

(A) A (B) B (C) C (D) D

47. E is lighter than which of the other two articles.

(A) A, B (B) D, C (C) A, C (D) D, B

48. E is heavier than which of the following two articles

(A) D, B (B) D, C (C) A, C (D) A,B

49. Which of the following is heaviest in weight?

(A) A (B) B (C) C (D) D

Direction (50): Read the following information carefully and answer the questions:

Ravi and Kunal are good in hockey and volleyball Sachin and Ravi are good in hockey and base ball. Gaurav and Kunal are good in volleyball and Cricket. Sachin, Sagar and Gaurav are good in baseball and football.

50. Who is good in hockey, cricket and Volleyball?

(A) Sachin (B) Kunal (C) Sagar (D) Ravi

CHAPTER

24

Sitting Arrangements

Sitting Arrangements

In such questions, first of all diagram should be made. By doing so questions are easily and quickly solved.

Example (a) 6 boys are sitting in a circle facing towards the centre of the circle.

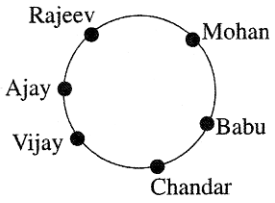
(b) Rajeev is sitting to he right of Mohan but he is not just of the left of Vijay.

(c) Chandar is between Babu and Vijay.

(d) Ajay is sitting to the left of Vijay.

Who is sitting to the left of Mohan ?

Solution :



Hence, Babu is sitting to the left of Mohan.

ASSIGNMENT – 1

Directions (1-3): A, B, C and D are to be seated in a row. But C and D cannot be together. Also B cannot be at the third place from the left.

1. Which of the following must be false?

   (A) A is at the first place (B) A is at the second place

   (C) A is at third place (D) A is at the fourth place

2. If A is not at the third place, then C has which of the following option?

   (A) The first place only (B) The third place only

   (C) The first and third place only (D) Any of the places

3. If A and B are together, then which of the following must be necessarily true?

   (A) C is not at the first place (B) A is at the third place

   (C) D is at the first place (D) C is at the first place

Direction (4-8): These questions are based on the following information.

Six friends A, B, C, D E and F are sitting around a circular table as per the following conditions. F is sitting to the left of A. B is sitting between C and E and is opposite to A. E is sitting to the right of D.

4. Who is sitting opposite to D?

   (A) A (B) B (C) C (D) F

5. Who is sitting to the left of B?

   (A) C (B) E (C) D (D) F

6. If E interchanges his place with the person sitting opposite to B, then who sits to the right of F?

(A) A (B) C (C) B (D) E

7. If each person interchanges his place with the person opposite, then who is sitting to the right of C?

(A) E (B) B (C) A (D) F

8. If A interchanges his place with D, F interchanges with E, and B interchanges with C, then which of the following statements must be true?

(A) A is to the right of F

(B) There are two persons sitting between B and D

(C) C and D sit opposite each other

(D) E sits to the right of F

Directions (9-15): *Select the correct alternative from the given choices*

9. Six persons P, Q, R, S, T and U are sitting around a hexagonal table. P is opposite to U and T is not sitting next to R and S. Q is sitting to the immediate right of U and opposite to R. Who is sitting to the immediate left of P?

(A) R (B) S (C) T (D) U

10. Eight persons – A, B, C, D, E, F, G, and H are sitting around a circular table. A is sitting opposite to B, C is sitting opposite to D, H is sitting adjacent to B and D and G is sitting to the right of A. If E is sitting to the right of D, then which of the following statements must be true?

(A) D is sitting between E and G

(B) E is sitting adjacent to F

(C) F is sitting between B and C

(D) Either E or F is sitting opposite to H

11. Seven persons – A, B, C, D, E, F and G are sitting around a circular table in the following manner. C is sitting between E and F. G is sitting to the left of A, who is sitting to the left of D. If F is sitting to the left of G, then who is sitting to the right of B?

(A) F (B) C (C) D (D) E

Direction (12 to 15) Each of these questions are based on the information given below:

Six friends A, B, C, D, E and F are sitting around the hexagonal table each at one corner. A is second to the left of F. B is the neighbor of C and D. E is second to the left of D.

12. Which of the following is sitting opposite to E?

(A) C (B) B (C) Cannot be determined (D) D

13. Out of the five , four pairs alike, Find odd one:

(A) B, D (B) A, C (C) E, F (D) E, A

14. Which of the following are the neighbours A ?

(A) F and A (B) E and C (C) F and C (D) Data inadequate

15. Who is four person left of B ?

(A) A (B) F (C) C (D) Data inadequate

Directions (16 to 20) : These questions are based on the following information.

Six friends – A, B, C, D, E and F are sitting around a circular table as per the following condition. F is sitting to the left of A. B is sitting between C and E and is opposite to A. E is sitting to the right of D.

16. Who is sitting opposite to D?

(A) A (B) B (C) C (D) F

17. Who is sitting to the left of B?
(A) C (B) E (C) D (D) F

18. If E interchange his place with the person sitting opposite to B, then who sits to the right of F?
(A) A (B) C (C) B (D) e

19. If each person interchanges his place with the person opposite, then who is sitting to the right of C?
(A) E (B) B (C) A (D) F

20. If A interchanges his place with D, F interchanges with E, and B interchanges with C, then which of the following statements must be true?
(A) A is to the right of F
(B) There are two persons sitting between B and D
(C) C and D sit opposite each other
(D) E sits to the right of F

ASSIGNMENT-2

Directions (21 to 25) : These questions are based on the following information.
Eight boys A, B, C, D, E, F, G and H are seated around a circular table. A and B are opposite to each other. F is neither next to H nor next to G. H is to the immediate left of B and opposite G. D is to the immediate right of B.

21. Who is to the right of A?
(A) G (B) F (C) C (D) E

22. Who is two places to the right of B?
(A) C (B) D
(C) E (D) Can not be determined

23. If F and G interchange places then who is opposite to H?
(A) C (B) D (C) G (D) F

24. If C is to the immediate right of F, then who is to the immediate left of G?
(A) A (B) C
(C) E (D) Can not be determined

25. Who is opposite to D?
(A) E (B) G (C) H (D) F

Directions (26 to 30) : These questions are based on the following information.
Four girls – A, B, C and D and four boys E, F, G and H are sitting around an octagonal table. No two boys can sit adjacent to each other. Also, it is known that A sits to the right of E and opposite to D. F sits to the left of B. G sits to the left of C, but not next to D.

26. B is sitting between _____
(A) F and G (B) E and F (C) H and F (D) G and D

27. Who sits to the right of H?
(A) D (B) C (C) B (D) A

28. If A interchanges his place with the person who is sitting opposite to C, then who sits to the right of F?
(A) E (B) B (C) A (D) G

29. If everybody interchanges his position with the person sitting opposite to him, then who sits between C and D?
(A) E (B) F (C) G (D) H

30. Who sits between B and A?
(A) E (B) F (C) G (D) H

Directions (31 to 35) : Study the following information carefully and answer the questions given below it:

(i) Eleven students A, B, C, D, E, F, G, H, I, J and K are sitting in a row of the class facing the teacher

(ii) D, who is to the immediate left of F, is second to the right of C.

(iii) A, is second to the right of E, who is at one of the ends

(iv) J is the immediate neighbour of A and B and third to the left of G.

(v) H is to the immediate left of D and third to the right of I

31. Who is sitting in the middle of the row?
(A) C (B) I (C) B (D) G

32. Which of the following groups of friends is sitting to the right of G?
(A) IBJA (B) ICHDF (C) CHDF (D) CHDE

33. In the above sitting arrangement, which of the following statement is superfluous?
(A) (i) (B) (ii) (C) (iii) (D) None

34. Which of the following statements is true in the context of the above sitting arrangements?
(A) There are three students sitting between D and G
(B) G and C are neighbours sitting to immediate right of H
(C) B is sitting between J and I
(D) K is sitting between A and J

35. If E and D, C and B, A and H and K and F interchange their positions, which of the following pairs of Students is sitting at the end?
(A) D and E (B) E and F (C) D and K (D) K and F

Directions (36 to 39) : Study the given information carefully and answer the questions that follow:

Seven friends Kamla, Manish, Rohit, Amit, Gaurav, Pritam and Priya are sitting in a circle. Kamla, Manish, Rohit, Amit, Pritam and Priya are sitting at equal distance from each other.

Rohit is sitting two places right of Pritam, who is sitting one place right of Amit, Kamla forms an angle of 90° from Gaurav and an angle of 120° from Manish. Manish is just opposite to Priya and is sitting on the left of Gaurav

36. Gaurav is not sitting at equal distances from
(A) Rohit and Pritam (B) Amit and Kamla
(C) Manish and Pritam (D) All of the above

37. Gaurav is sitting _____ of Priya
(A) to the left (B) to the right (C) two places right (D) none of these

38. The angle between Gaurav and Manish in the clockwise direction is
(A) 150° (B) 180° (C) 210° (D) None of these

39. Which of the following statements is not correct?
(A) Pritam is between Manish and Kamla
(B) Manish is two places away from Priya
(C) Gaurav is sitting opposite to Pritam
(D) All of the above

Directions (40) : A round table conference is attended by six persons A through F – each of whom is from a different country among – Australia, Bangladesh, China, Denmark, England and France. Further

(i) F, who is from Bangladesh, is the sitting to the right of B
(ii) The person from France is sitting opposite C, who is from Australia
(iii) D is adjacent to A and B
(iv) A is from China and E is from Denmark

40. If E is sitting to the right of C, who is from England?
(A) A (B) D (C) B (D) F

PREVIOUS YEAR NTSE QUESTIONS

Direction (41 to 43) : Read the following information carefully and answer the questions given below:

(i) There are five buildings – A, B, C, D and E in a row facing towards East but not necessarily in the same order. Five other building – P, Q, R, S and T are in another row facing towards West. The buildings in each row are arranged in front of one another

(ii) B is at one of the end. There is only C between B and D, A is to the immediate left of D

(iii) R is just opposite of C and is between P and Q S is to the immediate right of P.

41. Which of the following pairs is a both the ends in ray of the two rows?

(A) B and A (B) Q and S (C) P and T (D) B and E

42. A is in front of which of following buildings?

(A) S (B) P (C) T (D) Q

43. Which of the following buildings is infront of building E?

(A) S (B) R (C) T (D) None of these

Direction (44 to 47): There are Eight persons E, F, G, H, I, J, K and L are seated around a square table – two on each side. There are three lady members and they are not seated next to each other J is between L and F. G is between I and F. H a lady member is second to the left of J. L a male number, is seated opposite of E, a lady member. There is lady member between F and I

44. Who among the following is seated between E and H?

(A) F (B) I (C) J (D) None of these

45. How many persons are seated between K and F?

(A) One (B) Two

(C) Three (D) cannot to determined

46. Who among the following are the three lady members?

(A) E, G and J (B) E, H and G

(C) G, H and J (D) cannot to determined

47. Who among the following is the immediate left of F?

(A) G (B) I

(C) J (D) cannot to determined

Directions (48 to 50) : A, B, C, D, E, F and G are sitting in a row facing North. F is to the immediate right of E. E is 4^{th} to the right of G. C is the neighbour of B and D. Person who is third to the left of D is at one of the ends.

48. Who are to the left of C?

(A) Only B (B) G, B and D (C) G and B (D) D, E, F and A

49. Who are the neighbours of B?

(A) D and G (B) C and G (C) G and F (D) C and E

50. Which of the following statements in not true?

(A) E is to the immediate left of D (B) A is at one of the ends

(C) G is to the immediate left of B (D) F is second to the right of D

CHAPTER

25

Syllogism

Syllogism

In syllogism questions two or more statements are given and these statements are followed by two or more conclusions. The candidate is required to find out which of the conclusions logically follow from the given statements. The statements have to be taken true even if they seem to be at variance from the commonly known facts.

For such questions, the candidates should take the help of Venn diagrams. On the basis of the given statements, the candidate should draw all the possible diagrams, then he should drive the solution from each of these diagrams separately. Finally, the answer common to all the diagrams is taken.

Examples

1. **Statements**

   I. All dogs are asses.

   II. All asses are bulls.

   Conclusions

   I. Some dogs are not bulls.

   II. Some bulls are dogs.

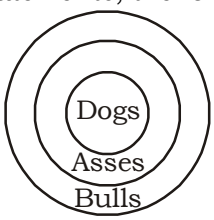
   III. All bulls are dogs.

   IV. All dogs are bulls.

   (A) I and II (B) II and III (C) II and IV (D) I and IV

Solution

(C) On the basis of both statements, the following one diagram is possible.



From the diagram it is clear that II and IV conclusions logically follow.

ASSIGNMENT-1

Directions: In each question given below two statements are followed by four conclusions numbered I, II, III and IV. You have to take the two given statements to be true even if they seem to be at variance from commonly known facts. Read the statements and conclusion and decide which of the conclusions logically follows from the two given statements, disregarding commonly known facts.

1. ***Statement:*** All green are blue. All blue are white.

Conclusions:

I. Some blue are green. II. Some white are green.

III. Some green are not white. IV. All white are blue.

(A) Only I and II (B) Only I and III (C) Only I and IV (D) Only II and IV

2. ***Statement:*** Some pens are books. Some books are pencils.

Conclusions:

I. Some pens are pencils. II. Some pencils are pens.

III. All pencils are pens. IV. All books are pens.

(A) Only I and III (B) Only II and IV (C) All the four (D) None of the four

3. ***Statement:*** All the research scholars are psychologists. Some psychologist are scientist.

Conclusions:

I. All the research scholars are scientist.

II. Some research scholars are scientists.

III. Some scientist are psychologist.

IV. Some psychologist are research scholars.

(A) Only III and IV (B) None of the four

(C) All the four (D) Only III

4. ***Statement:*** All the goats are tigers. All the tigers are lions.

Conclusions:

I. All the goats are lions. II. All the lions are goats.

III. Some lions are goats. IV. Some tigers are goats.

(A) All the four (B) Only I, II and III

(C) Only I, III and IV (D) Only II, III and IV

5. ***Statement:*** All members are students. NO student is a girl.

Conclusions:

I. All students are members. II. No members is a girl

III. Some students are members. IV. Some members are girls.

(A) Only I follows (B) Only I, II and III follow

(C) All follows (D) Only II and III follows

6. ***Statement :*** All soaps are clean. All clean are wet.

Conclusions:

I. Some clean are soaps. II. No clean is soap.

III. Some wet are soaps. IV. All wet are soaps.

(A) Only I follows (B) Only I and II follow

(C) Only either III and IV follow (D) Only I and III follow

7. ***Statement :*** All scientists are fools. All fools are illiterates.

Conclusions:

I. All scientist are illiterates. II. All illiterates are scientist.

III. All illiterates are fools. IV. Some illiterates could be scientists.

(A) Only I and IV follow (B) Only II follows

(C) Only II and III follow (D) Only IV follows

8. ***Statement :*** All players are teachers. Some teachers are jokers.

Conclusions:

I. All players are jokers. II. Some players are jokers.

III. Some jokers are teachers. IV. Some teachers are players

(A) All follow (B) Only III and IV follow

(C) Only II and IV follow (D) Only either IV or I and II follow

9. ***Statement :*** All pins are scales. All scales are caves.

Conclusions:

I. All caves are scales. II. All scales are pins.

III. All pins are caves. IV. Some caves are pins

(A) Only I, II and III follow (B) Only I, II and III follow

(C) Only either III or II and IV follow (D) Only III and IV follow

10. ***Statement :*** Some men are goats. All goats are jackals.

Conclusions:

I. Some men are jackals. II. Some jackals are men.

III. All jackals are goats. IV. Some goats are men.

(A) Only I and II follow (B) Only III and IV follow

(C) Only IV follows (D) None of these

11. ***Statement :*** Some frogs are bricks. All bricks are cakes.

Conclusions:

I. Some cakes are not frogs. II. Some cakes are frogs

III. No cake is frog. IV. All frogs are cakes.

(A) Only I and II follow (B) All follow

(C) None follows (D) Only II, III and IV follow

12. ***Statement :*** Some pencils are papers. Some papers are boxes.

Conclusions:

I. Some pencils are boxes. II. Some boxes are pencils.

III. Some boxes are papers. IV. Some papers are pencils.

(A) Only I and II follow (B) All follow

(C) Only III and IV follow (D) None follow

13. ***Statement :*** Some clothes are marbles. Some marbles are bags.

Conclusions:

I. No cloth is a bag. II. All marbles are bags.

III. Some bags are clothes. IV. No marble is a cloth.

(A) Only either I or IV follows (B) Only I or II follows

(C) Only I or III follows (D) None follows

14. ***Statement :*** Some camels are ships. No ship is a boat.

Conclusions:

I. Some ships are camels. II. Some boats are camels.

III. Some camels are not boats. IV. All boats are camels.

(A) Only I follows (B) Only II and III follow

(C) Only I and III follow (D) Only I and II follow

15. ***Statement :*** Some green are blue. No blue is white.

Conclusions:

I. Some blue are green. II. Some white are green.

III. Some green are not white. IV. All white are green.

(A) Only I follows (B) Only II and III follow

(C) Only I and II follow (D) Only I and III follow

16. ***Statement :*** Some students are brilliant. Sushma is a student.

Conclusions:

I. Some students are dull. II. Sushma is brilliant.

III. Susham is dull. IV. Students are usually brilliant.

(A) Only I follows (B) Only I and II follows

(C) Only II follows (D) All follow

17. ***Statement :*** Some keys are staplers. Some staplers are stickers. All the stickers are pens.

Conclusions:

I. Some pens are staplers. II. Some stickers are keys.

III. No sticker is key. IV. Some staplers are keys.

(A) Only I and II (B) Only II and IV

(C) Only II and III (D) Only I and IV and either II or III

18. ***Statement :*** All the locks are keys. All the keys are bats. Some watches are bats.

Conclusions:

I. Some bats are locks. II. Some watches are keys.

III. All the keys are locks. IV. Some keys are locks.

(A) Only I and II (B) Only I and IV

(C) Only II and III (D) Only I and III

19. ***Statement :*** All the papers are books. All the bags are books. Some purses are bags.

Conclusions:

I. Some papers are bags. II. Some books are papers.

III. Some books are purses. IV. Some papers are purses.

(A) Only I and IV (B) Only II and III (C) Only I and II (D) Only I and III

20. ***Statement :*** All the bottles are boxes. All the boxes are bags. Some bags are trays.

Conclusions:

I. Some bottles are trays. II. Some trays are boxes.

III. All the bottles are bags. IV. Some trays are bags.

(A) Only III and IV (B) Only I and II (C) Only II and III (D) Only I and IV

ASSIGNMENT-2

Directions (Q. 21-25): In each of the following questions below are given some statements followed by some conclusions. You have to take the given statements to be true if they seem to be at variance with commonly known facts. Read all the conclusions and then decide which one of the given conclusions logically definitely does not follow:

21. ***Statements:***

All soils are stones.

Some stones are hills.

All mountains are not clouds.

Conclusions:

(A) Some soils being clouds is a possibility.

(B) Some soils are hills is a possibility.

(C) No stone is cloud.

(D) No stone is a soil.

22. ***Statements:***

Some waters are streams.

All streams are canals.

All canals are rivers,

Some streams are ponds.

Conclusions:

(A) All ponds are canals.

(B) All canals are pond is a possibility

(C) All streams are rivers.

(D) All streams are not canals.

23. ***Statements:***

Some trees are forests.

Some forests are animals.

All herbivores are pets.

All animals are not herbivores.

Conclusions:

(A) Some trees are animals.

(B) No pet is a herbivore.

(C) Some trees are animals is a possibility.

(D) All herbivores being trees is a possibility.

24. ***Statements :***

Some buses are trains.

Some trains are metroes.

Some metroes are smarts.

All smarts are electronic vans.

Conclusions:

(A) No electronic van is a smart.

(B) Some metroes are electronic vans.

(C) Some trains being electronic vans is a possibility.

(D) Some electronic vans are buses is a possibility

25. ***Statements***

All apples are oranges

All apples are not papayas.

Some papayas are guavas.

Some oranges are sweets.

Conclusions:

(A) All apples being sweets is a possibility.

(B) All guavas are sweets

(C) All sweets being guavas is a possibility.

(D) No orange is sweet.

26. ***Statements***

Some tables are jugs.

Some jugs are pots.

All pots are plates.

Conclusions

I. Some plates are jugs.

II. Some pots are tables.

III. Some plates are tables.

(A) None follows

(B) Only I follows

(C) Only II follows

(D) Only II follows

27. ***Statements***

All chairs are rings.

Some rings are sticks.

All sticks are branches.

Conclusions

I. Some branches are chairs

II. Some branches are rings

III. Some sticks are chairs

(A) None follows

(B) Only I follows

(C) Only II follows

(D) Only III follows

28. ***Statements***

All bulbs are chairs.

All chairs are tables.

All tables are mirrors.

Conclusions

I. Some mirrors are bulbs.

II. Some tables are bulbs.

III. All chairs are mirrors.

(A) Only I and II follow

(B) Only I and III follow

(C) Only II and III follow

(D) All follow

29. ***Statements***

All knives are hammers.

No hammer is sword

Some swords are nails

Conclusions

I. Some nails are hammers.

II. Some swords are knives.

III. No nail is hammer.

(A) None follows

(B) Only either I or III follows

(C) Only II follows

(D) Only III follows

30. ***Statements***

Some fruits are trees.
All trees are jungles
All jungles are roads

Conclusions

I. All fruits are jungles
II. Some roads are fruits
III. Some jungles are fruits
(A) Only I and II follow
(B) Only I and III follow
(C) Only II and III follow
(D) All follow

31. ***Statements***

Some books are pens.
Some pens are desks.
Some desks are racks

Conclusions

I. Some racks are pens
II. Some desks are books
III. Some racks are books
(A) Only I follows
(B) Only II follows
(C) Only III follows
(D) None follows

32. ***Statements***

No room is house.
No house is building
Some buildings are huts.

Conclusions

I. Some huts are rooms
II. Some huts are houses
III. Some huts are buildings
(A) Only I follows
(B) Only II follows
(C) Only III follows
(D) None follows

33. ***Statements :***

No bottle is a jar.
All cans are jars.
All cans are tumblers.

Conclusions

I. At least some cans are bottles.
II. No tumbler is a bottle
(A) neither conclusion I nor II is true
(B) both conclusions I and II are true
(C) only conclusion II is true
(D) either conclusion I or II is true

34. ***Statements :***

Some prints are designs.
All designs are copies.
All copies are motifs.

Conclusions

I. At least some copies are prints.
II. All motifs being prints is a possibility
(A) either conclusion I or II is true
(B) only conclusion II is true
(C) only conclusion I is true
(D) both conclusions I and II are true

35. ***Statements :***

No bottle is a jar.

All cans are jars.

All cans are tumblers.

Conclusions

I. All tumblers are jars possibility.

II. All bottles being tumblers is a

(A) neither conclusion I nor II is true.

(B) both conclusions I and II are true.

(C) only conclusion II is true.

(D) either conclusion I or II is true.

36. ***Statements :***

Some prints are designs.

All designs are copies.

All copies are motifs.

Conclusions

I. At least some prints are motifs

II. All designs are motifs

(A) only conclusion I is true

(B) both conclusions I and II are true

(C) either conclusion I or II is true

(D) neither conclusion I nor II is true

37. ***Statements :***

All clouds are vapors.

No vapors is a gas.

All gases are rains.

Conclusions

I. All vapors being rains is a possibility.

II. All vapors are clouds

(A) either conclusion I or II is true.

(B) both conclusions I and II are true.

(C) only conclusion I is true.

(D) only conclusion II is true.

38. ***Statement:***

All soaps are clean.

All clean are wet.

Conclusions:

I. Some clean are soaps.

II. No clean is a soap.

III. Some wet are soaps.

IV. All wet are soaps.

(A) Only I follows

(B) Only I or II follows

(C) Only either III or IV follows

(D) None of these

39. ***Statement:***

I. Price rise is a natural phenomenon

II. If production increases prices fall.

III. High prices affect the poor.

Conclusions:

If production rises the poor feel relieved.

(A) Only (i) and (ii)

(B) Only (i) and (iii)

(C) Only (ii) and (iii)

(D) Data sufficient

40. ***Statement:***

Adversity makes a man wise

Conclusions:

I. The poor are wise.
II. Man learns from better experience.

(A) Only conclusion I is right
(B) Only conclusion II is right
(C) Both conclusion are right
(D) Both conclusion are wrong

PREVIOUS YEAR NTSE QUESTIONS

41. ***Statements :***

(I) Some Cubes are squares.
(II) All squares are circles.

Conclusions:

(I) All cubes are circles.
(II) Some circles are cubes.
(III) Some circles are square
(IV) All squares are cubes.
(A) Only conclusion I follows
(B) Only conclusions I, II and III follows
(C) All conclusions follows
(D) Only conclusions II and III follows

42. ***Statements:***

(I) All doors are cots
(II) Some cots are erasers

Conclusions :

(I) Some doors are erasers.
(II) All cost are doors
(III) Some cots are doors.
(IV) Some erasers are doors
(A) Only conclusions III and IV follows
(B) Only conclusions I and II follows
(C) Only conclusions III follows
(D) Only conclusions IV follows

43. ***Statements :***

(I) All parrots are koels
(II) No koel is goat

Conclusions:

(I) No parrot is goat
(II) Some Parrots are goats
(III) All koels are parrots
(IV) Some goats are parrots
(A) Only conclusion I follows
(B) Only conclusion III follows
(C) Only conclusion II and III follows
(D) Only conclusion IV follows

44. ***Statements :***

(I) Some pencils are papers
(II) Some papers are boxes

Conclusions:

(I) Some pencils are boxes
(II) Some boxes are pencils
(III) Some boxes are papers
(IV) Some papers are pencils.
(A) Only conclusions I and II follows
(B) Only conclusions II and III follows
(C) Only conclusions III and IV follows
(D) All conclusions follows.

45. ***Statement***

(I) Some books are pencils.
(II) Some pencils are pens.

Conclusions

(I) All books are pens.
(II) Some pens are books.
(A) Only conclusion (I) is true

(B) Only conclusion (II) pens

(C) Conclusion (I) and (II) both are true

(D) Neither conclusion (I) nor conclusion (II) are true

46. ***Statements***

(I) Some men are educated. (II) Educated persons prefer small families.

Conclusions:

(I) All small families are educated. (II) Some men prefer small families.

(A) Only conclusion (I) is true

(B) Only conclusion (II) is true

(C) Conclusion (I) and (II) both true.

(D) Neither conclusion (I) nor conclusion (II) are true

47. ***Statement :***

(I) All dancers are singers. (II) All singers are teachers

Conclusions:

(I) All dancers are teachers (II) Some singers are dancers

(A) Only conclusion (I) is true

(B) Only conclusion (II) is true

(C) Both conclusions (I) and (II) are true

(D) Neither conclusion (I) nor (II) conclusion (II) are true

48. ***Statement :***

(I) Some fruits are mangoes. (II) Some fruits are not guavas.

Conclusions:

(I) All fruits are mangoes. (II) All mangoes are fruit.

(A) Only conclusion (I) is true

(B) Only conclusion (II) is true

(C) Both conclusions (I) and (II) are true

(D) Neither conclusion (I) nor conclusion (II) are true

49. ***Statement :***

(I) No horse is dog. (II) All dogs are elephants.

Conclusions

(I) No elephant is horse (II) Some elephants are dogs

(A) Only conclusion (I) is true

(B) Only conclusion (II) is true

(C) Both conclusions (I) and (II) are true

(D) Neither conclusion (I) nor conclusion (II) are true

50. ***Statement***

(I) All sages are kind. (II) All artists are kind

Conclusion:

(I) All sages are artists (II) All artists are sages

(III) Some kind (persons) are sages (IV) Some kind (persons) are artists

(A) Only (III) and (IV) (B) Only (II) and (III)

(C) Only (IV) (D) None of these

CHAPTER

26

Calendar

Calendar

- Points to be remembered about Calendar -
- A year divisible by 4 is a leap year.
- In case of century, a leap year is that which is divisible by 400
- There are 365 days in an ordinary year, so there are 52 weeks + 1 day. Hence, an ordinary year contains 1 odd day.
- There are 366 days in a leap year. Hence, a leap year contains 2 odd day.
- There are 28 days in February in an ordinary year while in leap year there are 29 days in Feb.
- The day of week on 1st January 1 A.D. is Monday.
- After 11 years the calendar is repeated

Examples

1. If 22nd August is Sunday, What day was on 22days before?

   (A) Saturday (B) Sunday (C) Monday (D) Tuesday

Solution

(A)

Difference of No. of days = 22

$\therefore$ No. of odd days = $1\left[\because \frac{22}{7}=3+1\right]$

$\therefore$ 1 day before Sunday is Saturday

Hence, it will be Saturday before 22 days

ASSIGNMENT-1

1. How many Mondays are there in a particular month of a particular year, if the month ends on Wednesday?

   (A) 4 (B) 5 (C) 3 (D) 4 or 5

2. If the day, two days after tomorrow be Thursday, what day would have been two days before yesterday?

   (A) Friday (B) Tuesday (C) Monday (D) Saturday

3. Mahatma Gandhi was born on 2 October 1869. The day of the week was

   (A) Sunday (B) Monday (C) Saturday (D) Friday

4. 5 March 1999 was on Friday. What day of the week was 5 March 2000?
   (A) Monday (B) Sunday (C) Friday (D) Tuesday
5. On what dates of August, 1998, does Friday fall?
   (A) 5 (B) 4 (C) 14 (D) 17
6. India got independent on 15 August 1947. What was the day of the week?
   (A) Monday (B) Friday (C) Thursday (D) Sunday
7. 7 January 1992 was Tuesday. Find the day of the week on the same date after 5 year, i.e., on 7 January 1997?
   (A) Tuesday (B) Wednesday (C) Saturday (D) Friday
8. Number of times 29th day of the month occurs in 400 consecutive years is
   (A) 4497 (B) 4800 (C) 4400 (D) None of these
9. The first republic day of India was celebrated on 26 January 1950, What was the day of the week in that date?
   (A) Monday (B) Wednesday (C) Saturday (D) Thursday
10. In an ordinary year the days of March as begin on the same day of the week of other months?
    (A) Feb; Nov (B) Jan; Nov (C) Feb; Oct (D) Jan; Sept
11. If 2 March 1994 was on Wednesday, 25 March of 1994 was on
    (A) Wednesday (B) Thursday (C) Friday (D) Monday
12. Calendar for 2000 will serve for also
    (A) 2003 (B) 2006 (C) 2007 (D) 2005
13. A day after tomorrow will be X-mas day. What will be the day on New Year day if today is Monday?
    (A) Monday (B) Wednesday (C) Sunday (D) Tuesday
14. Sunanda remembers that she saw her mother on Tuesday after 26th of a month. If 4th of that month fell on Friday, then on what day of the week did she meet?
    (A) 27th (B) 28th (C) 29th (D) None of these
15. If 18th February, 1997 falls on Tuesday then what will be the day on 18th February, 1999?
    (A) Monday (B) Tuesday (C) Thursday (D) Friday
16. If Saturday falls four days after today which is 6th January, on what day did the 1st of December of previous year fall?
    (A) Sunday (B) Wednesday (C) Tuesday (D) Friday
17. If Thursday falls on 20th September 1984, what day will be on 20th September 1992?
    (A) Monday (B) Tuesday (C) Sunday (D) Friday
18. Which two months in a year have the same calendar?
    (A) June, October (B) April, November
    (C) April, July (D) October, December
19. If Wednesday falls on 25h May 1977, what day will be on 25th May 1996?
    (A) Sunday (B) Saturday (C) Friday (D) Monday
20. I bought the January issue of "Vigyan Pragati" in 1986, which contained the calendar of that year. Tell the other year for which this calendar can be used.
    (A) 1997 (B) 2001 (C) 1995 (D) 2003

ASSIGNMENT-2

21. Radha remembers that her father's birthday was after 16th but before 21st April, while her brother Mangesh remembers that his father's birthday was after 19th and before 22nd April. On what date his father's birthday falls?

(A) 19th April (B) 21st April (C) 20th April (D) None of these

22. Prabhat remembers that his mother's birthday falls after 17th but before 21st April while his sister Urmila remembers that her mother's birthday falls after 19th April but before 24th April. On what date her mother's birthday falls?

(A) 20th April (B) 21st April (C) 19th April (D) 22nd April

23. Anuradha remembers that her friend had visited her after 13th but before 18th of the month, while Anuradha's sister remembers that Anuradha's friend had visited after 16th but before 20th. If it was Saturday on 16th, of the month, then on which day of the week, Anuradha's friend did visit to her?

(A) Saturday (B) Monday (C) Sunday (D) None of these

24. If 18th Jan., 1997 falls on Tuesday, what day will fall on 18th Feb., 1997?

(A) Monday (B) Tuesday (C) Thursday (D) Friday

25. If 1st October falls on Sunday, what day of week will fall on 1st November?

(A) Monday (B) Tuesday (C) Wednesday (D) Thursday

26. If 17th Dec., 1982 falls on Saturday, what day of the week will fall on 22nd Dec., 1984?

(A) Monday (B) Tuesday (C) Thursday (D) Sunday

27. If the seventh day of a month is three days earlier than Friday, what day will be on the 19th day of the month?

(A) Sunday (B) Monday (C) Wednesday (D) Friday

28. If the 1st day of an ordinary year (Not leap year) falls on Friday, then what will be the day on the last day of that year?

(A) Monday (B) Friday (C) Saturday (D) Sunday

29. Which of the following years, is a leap year?

(A) 1982 (B) 1704 (C) 1978 (D) 1954

30. If on Wednesday there will be X-mas-day. What will be the day on the next New-year-day?

(A) Sunday (B) Thursday (C) Wednesday (D) Monday

31. Kamla is 41 weeks older to me while Anuradha is 15 weeks older to her. If Anuradha was born on Saturday, on which day was I born

(A) Friday (B) Wednesday (C) Sunday (D) Saturday

32. Veerchand was born on 22nd March 1982. On what day of the week was he 14 years 7 months and 8 days of age?

(A) Tuesday (B) Monday (C) Sunday (D) Wednesday

33. Hemant took the calendar of the year 1990 and with its help he came to know about the days of the year. Can he use the same calendar for any other year? If so then for which year?

(A) 1996 (B) 2001 (C) 2005 (D) 2004

Directions (34 to 35): Study the information given below and then answer each of these questions:

(i) Kamal is available at home from 12 noon to 4 pm on Tuesday, Thursday and Sunday

(ii) His younger brother Navin is available at home on Monday, Thursday, Friday and Sunday between 10 am to 2 pm

(iii) The eldest brother Rajeev is available between 9 am to 12 noon on Monday, Wednesday and Thursday while 2 pm to 4 pm on Friday, Saturday and Sunday.

34. At a time on which of week all the three brothers are available at home?

(A) None (B) Sunday

(C) Thursday (D) Can't be determined

35. For how many days youngest brother is available at a particular time in a week?

(A) 1 (B) 2 (C) 3 (D) 4

36. On which day(s) of a week the youngest and the eldest brother are available at home at the same time?

(A) Only Monday (B) Monday and Thursday

(C) Only Thursday (D) Only Friday

37. If on 1st September is Sunday, then 1st November will be

(A) Monday (B) Tuesday (C) Friday (D) Thursday

38. Which of the following years is not a leap years?

(A) 1600 (B) 1000 (C) 800 (D) 1200

39. In U.P. on 17th October 1996 the president rule was declared. Find the day of week on that day

(A) Tuesday (B) Friday (C) Wednesday (D) None of these

40. If it was Saturday on 15th November, 1981, what will be the day on 22nd November 1984?

(A) Monday (B) Tuesday (C) Wednesday (D) Sunday

PREVIOUS YEAR NTSE QUESTIONS

41. If your birth day 30th June, 2003 falls on Monday, on what day of the week does your birth day fall in the year 2005?

(A) Sunday (B) Tuesday (C) Wednesday (D) Thursday

42. On what day of the week India will celebrate its Republic Day on 26th January, 2015?

(A) Sunday (B) Monday (C) Tuesday (D) Wednesday

43. Manuni went to the movies nine days ago. She goes to the movie only on Thursday. What day of the week is today?

(A) Sunday (B) Tuesday (C) Thursday (D) Saturday

44. If the fifth day of month is Friday, which of the following will be the seventh day from 10th of that month?

(A) Wednesday (B) Sunday (C) Friday (D) Saturday

45. If 21st November falls five days before Wednesday, then what will be the day on 25th December?

(A) Monday (B) Tuesday (C) Wednesday (D) Thursday

46. If 1st October is Sunday, then 1st November will be

(A) Monday (B) Tuesday (C) Wednesday (D) Thursday

47. Which two months in a year have the same calendar?

(A) June, October (B) April, November

(C) April, July (D) October, December

48. If the first day of a leap year is Monday, then what will be on the last far of that year?

(A) Wednesday (B) Tuesday (C) Thursday (D) Sunday

49. If 14th September, 2013 is Saturday, then what day will be 22nd December, 2014

(A) Sunday (B) Monday (C) Tuesday (D) Wednesday

50. If Thursday falls on 1st January 2015 what day of the week will be on 1st January 2016?

(A) Monday (B) Tuesday (C) Friday (D) Sunday

CHAPTER

27

Clock

CLOCK

The hour hand and the minute hand of a clock move in relation to each other continuously and at any given point of time, they make an angle between 0° and 180° with each other.

Minute hand covers 360° in 1 hour, i.e., in 60 minutes. Hence, MINUTE HAND COVERS 6° PER MINUTE.

Hour hand covers 360° in 12 hours. Hence, HOUR HAND COVERS 30° PER HOUR i. e., 12° per minute.

The following additional points also should be remembered. In a period of 12 hours, the hands make an angle of

0° with each other (i.e., they coincide with each other), 11 times

180° with each other (i.e., they lie on the same straight line), 11 times.

Any other angle with each other, 22 times.

1. At what time between 5 and 6 O'clock are the hands of a clock together?

(A) 5 hr $26\frac{3}{11}$ min (B) 5 hr $23\frac{3}{11}$ min

(C) 5 hr 20 min (D) 5 hr $27\frac{3}{11}$ min

1. Here, H = 5

$\therefore \quad \frac{60H}{11} = \frac{60}{11} \times 5 = \frac{300}{11} = 27\frac{3}{11}$

$\therefore$ Hands of a clock are together at $22\frac{3}{11}$ minutes past 5 O'clock

2. At what time between 5 and 6 O'clock will the hands of a clock be at right angle?

(A) 5 hr $10\frac{10}{11}$ min (B) 5 hr $43\frac{7}{11}$ min

(C) 5 hr $22\frac{7}{11}$ min (D) Both (A) and (B)

2. Here, H = 5

$\therefore \quad (5H \pm 15)\frac{12}{11} = (5 \times 5 \pm 15)\frac{12}{11} = 10\frac{10}{11} \& 43\frac{7}{11}$

$\therefore$ Hands of a clock are at right angle at $10\frac{10}{11}$ minutes past 5 and $43\frac{7}{11}$ minutes past 5.

ASSIGNMENT -1

1. Find at what time between 2 and 3 O'clock will the hands of a clock in the same straight line but not together.

   (A) 2 hr $43\frac{7}{11}$ min (B) 2 hr $33\frac{7}{11}$ min

   (C) 2 hr $22\frac{7}{11}$ min (D) 2 hr $3\frac{7}{11}$ min

2. Find the time between 4 and 5 O'clock when the two hands of a clock are 4 minutes apart.

   (A) 4 hr $26\frac{2}{11}$ min (B) 4 hr $17\frac{5}{11}$ min

   (C) 4 hr $11\frac{2}{11}$ min (D) Both (A) and (B)

3. Find the angle between the two hands of a clock at 15 minutes past 4 O'clock.

   (A) 37° (B) 22° (C) 37.5° (D) 27.5°

4. The minute hand of a clock overtakes the hour hand at intervals of 65 minutes. How much a day does the clock gain or loss?

   (A) $9\frac{10}{143}$min (B) $10\frac{10}{143}$min (C) $11\frac{10}{143}$min (D) $12\frac{10}{143}$min

5. At what time between 3 and 4 O'clock are the hands of a clock together?

   (A) $15\frac{7}{11}$ minutes past 4 (B) $16\frac{4}{11}$ minutes past 3

   (C) $16\frac{2}{11}$ minutes past 2 (D) None of these

6. At what time between 7 and 8 O'clock will the hands of a clock be at right angle?

   (A) $19\frac{5}{11}$ minutes past 2 (B) $21\frac{9}{11}$ minutes past 7

   (C) 18 minutes past 4 (D) None of these

7. Find at what time between 8 and 9 O'clock will the hands of a clock be in the same straight line but not together?

   (A) $11\frac{9}{11}$ minutes past 5 (B) $9\frac{7}{11}$ minutes past 5

   (C) $10\frac{10}{11}$minutes past 8 (D) None of these

8. At what time between 5 and 6 O'clock are the hands of a clock 3 minutes apart?

   (A) 24 minutes past 5 (B) 22 minutes past 3

   (C) 26 minutes past 4 (D) none of these

9. Find the angle between the two hands of a clock at 30 minutes past 4 O'clock

   (A) 40° (B) 30° (C) 45° (D)None of these

10. How much does a watch gain or lose per day, if its hands coincide every 64 minutes?

    (A) $32\frac{8}{11}$ minutes gain (B) $34\frac{2}{11}$ minutes gain

(C) $32\frac{8}{11}$ minutes loss (D) None of these

11. How often between 11 O'clock and 12 O'clock are the hands of the clock an integral number of minutes apart?

(A) 55 times (B) 56 times (C) 58 times (D) 60 times

12. Number of times the hands of a clock are in a straight line every day is

(A) 44 (B) 24 (C) 42 (D) 22

13. My watch gains 5 seconds in 3 minutes was set right at 7 a.m. In the afternoon of the same day, when the watch indicated quarter past 4 O'clock, the true time is

(A) $59\frac{7}{12}$ min. past 3 (B) $12\frac{3}{11}$ min past 3

(C) 4 p.m. (D) $7\frac{5}{12}$ min past 4

14. My watch gains 5 min. every hour. How many degree the second hand moves in every minute?

(A) 375° (B) 380° (C) 390° (D) 365°

15. At what time between 4 : 30 and 5 will the hands of a clock be in a straight line?

(A) 50 mins. Past 4 (B) 42 mins. Past 4

(C) $54\frac{6}{11}$ mins. Past 4 (D) 46 mins. Past 4

16. A watch which loses uniformly was observed to be 12 minutes fast at 4:00 a.m. on 6^{th} of a month. It showed 20 minutes less than the correct time at 6 p.m. on the 10^{th} of the same month. When did the watch show the correct time?

(A) 9:15 p.m. on the 7^{th} (B) 9:5 a.m. on the 8^{th}

(C) 9:35 p.m. on the 9^{th} (D) 9:20 p.m. on 7^{th}

17. A clock strikes 4 talking 9 seconds. In order to stride 12 at the same rate, the time taken is

(A) 27 seconds (B) 36 seconds (C) 30 seconds (D) 33 seconds

18. How often are the hands of a clock at right angle everyday?

(A) 38 times (B) 44 times (C) 40 times (D) 48 times

19. How many times in a day, the hands of a clock are straight?

(A) 22 (B) 24 (C) 44 (D) 48

20. At 12 O'clock the minute hand points east. At 4:30, in which direction will the hour hand point?

(A) North-west (B) South-east (C) South (D) South-west

ASSIGNMENT-2

21. A clock is set right at 5 a.m. The clock loses 16 min. in 24 hours. What will be the true time when the clock indicates 10 p.m. on the 4^{th} day?

(A) 9 a.m. (B) 11 p.m. (C) 11 a.m. (D)9 p.m.

22. My watch was 3 minutes slow at 5 p.m. Tuesday and it was 5 minutes fast at 11 p.m. Wednesday. When did it give correct time?

(A) Wednesday 4 : 15 a.m. (B) Wednesday 7:15 a.m.

(C) Tuesday 7:30 a.m. (D) None of these

23. A watch, which gains uniformly, was observed to be 4 minutes, slow at 6:00 a.m. on a Monday. On the subsequent Thursday at 7:00 p.m. it was noticed that the watch was 6 minutes fast. When did the watch show the correct time?

(A) 5:00 p.m. Tuesday (B) 4:00 p.m. Tuesday

(C) 6:00 p.m. Tuesday (D) 3:00 p.m. Tuesday

24. A man who went out between 3 and 4 and returned between 8 and 9, found that the hands of the watch had exactly changed places. He returned at

(A) 14 mins. Past 8 (B) $21\frac{1}{13}$ mins past 8

(C) $19\frac{2}{13}$ mins past 8 (D) $18\frac{6}{13}$ mins. Past 8

25. A clock gains 10 minutes in every 24 hours. It is set right on Monday at 8 a.m. What will be the correct time on the following Wednesday, when the watch indicates 6 a.m.?

(A) 5:30 p.m. (B) 5:40 p.m. (C) 4:36 p.m. (D) none of these

26. A watch, which gain uniformly, was observed to be 5 minutes slow at 12 noon on Monday. It was noticed 10 minutes fast at 6 p.m. on the next day. When did the watch show the correct time?

(A) 9:00 p.m., on the same day

(B) 9 hours 30 minutes p.m., on the same day

(C) 10 hours 30 minutes p.m., on the same day

(D) 10:00 p.m., on the same day

27. The watch which gains uniformly is 2 minutes slow at noon on Sunday and is 4 min. 48 sec. fast at 2 p.m. on the following Sunday. The watch was correct at

(A) 2 p.m. on Tuesday (B) 12 noon on Monday

(C) 1:30 p.m. on Tuesday (D) 12:45 p.m. on Monday

28. A watch which gains uniformly is 6 minutes slow at 4 p.m. on a Sunday and $10\frac{2}{3}$ minutes fast on the following Sunday at 8 p.m. During this period (Day and Time) when was the watch correct?

(A) 2:36 a.m. (B) 1:36 a.m. (C) 2:36 p.m. (D) 1:36 p.m.

29. If a clock takes 22 seconds to strike 12, how much time will it take to strike 6?

(A) 10 seconds (B) 12 seconds (C) 14 seconds (D) None of these

30. A clock strikes 12 and it takes 22 seconds to do so. How much time will it take to strike 4?

(A) 10 s (B) 6 s (C) 8 s (D) 11 s

31. At what angle are the hands of a clock inclined at 20 minutes past 7?

(A) 80° (B) 90° (C) 100° (D) 120°

32. What is the angle between the two hands of a clock, when the time is 2 hours 35 minutes?

(A) 122½° (B) 142½° (C) 132½° (D) 116½°

33. At what time between 6 and 7 O'clock, are the hands of a clock together?

(A) 6 hours $32\frac{8}{11}$ minutes (B) 6 hours $33\frac{6}{11}$ minutes

(C) 6 hours $34\frac{5}{11}$ minutes (D) 6 hours $29\frac{7}{11}$ minutes

34. At what time between3 and 4 O'clock are the hands of a clock in the opposite direction?

(A) 3 hours $48\frac{6}{11}$ minutes (B) 3 hours $49\frac{1}{11}$ minutes

(C) 3 hours $50\frac{4}{11}$ minutes (D) 3 hours $47\frac{1}{11}$ minutes

35. The angle between the two hands of a clock is 70°, when the hour hand is between 7 and 8. What time does the watch show?

(A) 7 hours $50\frac{10}{11}$ minutes (B) 7 hours $25\frac{5}{11}$ minutes

(C) 7 hours $42\frac{8}{11}$ minutes (D) Both (1) and (2)

36. The time on the watch is 4:30. If the minute hand points towards the south, the hour hand will point towards

(A) South-East (B) East (C) West (D) North West

37. A boy observes the reflection of a wall clock in a mirror. The time observed by the boy in the mirror is 4 hours 20 minutes. What is the actual time shown on the clock?

(A) 7 hours 15 minutes (B) 7 hours 50 minutes

(C) 7 hours 40 minutes (D) 7 hours 35 minutes

38. There are two clocks on a wall, both set to show the correct time at 8 a.m. One clock loses two minutes in an hour while the other gains one minute in one hour. By how many minutes do the two clocks differ at 12 noon on the same day?

(A) 6 minutes (B) 9 minutes (C) 12 minutes (D) 15 minutes

39. A clock is set to show the correct time at 8:00 a.m. The clock gains 10 minutes in a day. What will be the approximate time, when the watch indicates 4:00 p.m. the next day?

(A) 3 hours 36 minutes (B) 3 hours 47 minutes

(C) 3 hours 50 minutes (D) 3 hours 54 minutes

40. There are two clocks on a wall, both set to show the correct time at 12 noon. Both the clocks gain 1 minute and 2 minutes respectively in an hour. If the clock which gains 1 minute in one hour shows the time as 8 minutes past 8:00 p.m. on the same day, then what time does the other watch show?

(A) 8 hours 4 minutes (B) 8 hours 8 minutes

(C) 8 hours 16 minutes (D) 7 hours 52 minutes

PREVIOUS YEAR NTSE QUESTIONS

41. Reaching the place of meeting 15 minutes before 8.30 am, Anuj found himself half an hour earlier than the man who was 40 minutes late. What was the scheduled time of meeting?

(A) 8.00 am (B) 8.05 am (C) 8.15 am (D) 8.10 am

42. At what angle are the hands of a clock inclined at 30 minutes past 6?

(A) $7\frac{1}{2}°$ (B) $11\frac{1}{2}°$ (C) 15° (D) 23°

43. A clock is set to show the correct time at 11 a.m. The clock gains 12 minutes in 12 hours what will be the true when the watch indicates 1 p.m. on the 6th day?

(A) 10 a.m. (B) 11 a.m. (C) 12 noon (D) None of these

44. A clock is so place that at 12 noon, its minute hand points towards north-east. In which direction does its hour hand point at 1 :30 pm.?

(A) East (B) West (C) North (D) South

45. If in a clock, the numbers 1 to 12 are replaced with alphabet starting from F, then, which of the following options shall indicate the time as 9 O' clock?

(A) M – P (B) P – M (C) N –P (D) N –Q

46. At 12 o' clock minute hand points east, At 4 : 30, in which direction the hour hand will point?

(A) North – East (B) South – East (C) South (D) South – West

47. A bus for Bombay leaves after every forty minutes from a but stand. An enquiry clerk told a passenger that the bus had already left ten minutes ago and the next bus will leave at 10 : 45 a.m. At what time did the enquiry clerk given the information to the passenger?

(A) 10 : 05 a.m. (B) 9 : 35 a.m. (C) 10 : 35 a.m. (D) 10 : 15 a.m.

48. At 3: 40 A.M., the hour hand and the minute hand of a clock form an angle of

(A) 120° (B) 125° (C) 135° (D) 130°

49. I left home for bringing milk between 7 am and 8 am. The angle between the hour-hand and the minute-hand was 90° I returned home between 7 am and 8 am. Then also the angle between the minute –hand and hour –hand was 90°. At what time (nearest to second) did I leave and return home?

(A) 7h 18 m 35 s & 7h 51 m 24 s (B) 7h 19m 24s & 7h 52 m 14s

(C) 7h 20 m 42s & 7h 53 m 11s (D) 7h 21m 49s & 7h 54m 33s

50. I left home at 3 : 00 pm and returned at 3 : 48 pm. The clock was rotated by 45°, so that when I left, the hour-hand of a clock was pointing along the south-east direction. In which direction would the hour-hand point when I returned ?

(A) 15° East of South (B) 21° East of South

(C) 63° South of East (D) 27° South of East

CHAPTER

28 Cube and Dice

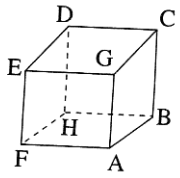
Cube and Dices

Dice is a cube. In cube there are 6 faces. Numbers 1 to 6 are written on the faces. Only one number from 1 to 6 is written on one face. Some-times are faces are coloured and black dots from 1 to 6 are marked

Some important points

Examples

1. There are 6 faces in the cube – ABCG, GCDE, DEFH, BCDH, AGEF and ABHF.

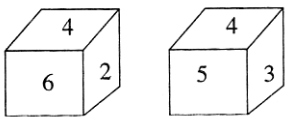


2. Always four faces are adjacent to one face
3. CDEG is the upper face of the cube.
4. ABHF is the bottom of the cube.

There are certain rules with the help of these rules questions on dice can easily determined.

Rule No. 1 Two opposite faces cannot be adjacent to one another.

Example.



Two different positions of a dice are shown above. Which number will appear on the face opposite to the face with number 4 ?

Solution : Faces with four numbers 6, 2, 5 and 3 are adjacent to the face with No. 4

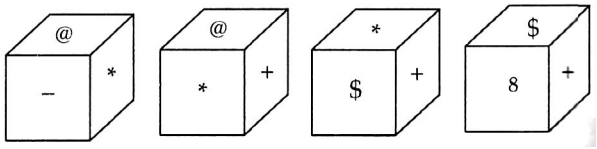
Hence the faces with no.6,2,5 and 3 cannot be opposite to the face with no. 4.

Therefore the remaining face with no. 1 will be opposite to the face with no. 4.

Rule No. 2. If two different positions of a dice are shown and one of the two common faces is in same position then of the remaining faces will be opposite to each other.

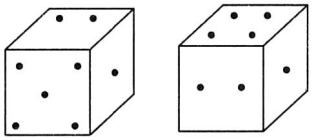
ASSIGNMENT-1

1. Which symbol will be on the face opposite to the face with symbol *?



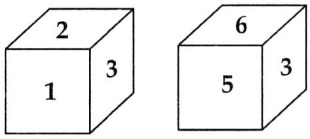
(A) @ (B) $ (C) 8 (D) +

2. Two positions of dice are shown below. How many points will appear on the opposite to the face containing 5 points?



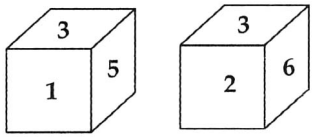
(A) 3 (B) 1 (C) 2 (D) 4

3. Which digit will appear on the face opposite to the face with number 4?



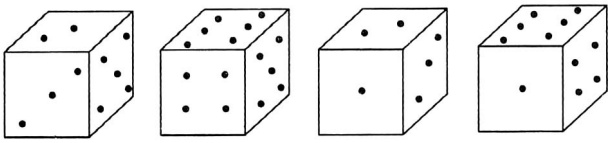
(A) 3 (B) 5 (C) 6 (D) 2/3

4. Two positions of a dice are shown below. Which number will appear on the face opposite to the face with the number 5?



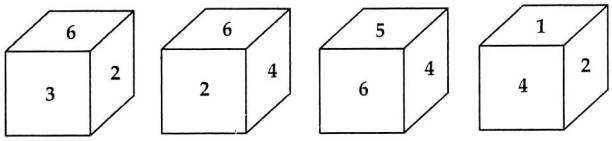
(A) 2/6 (B) 2 (C) 6 (D) 4

5. How many points will be on the face opposite to in face which contain 2 points?



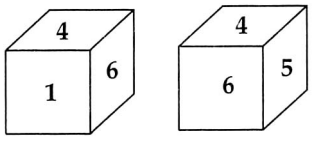
(A) 1 (B) 5 (C) 4 (D) 6

6. Which number is on the face opposite to 6?



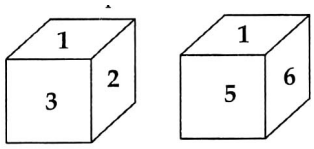
(A) 4 (B) 1 (C) 2 (D) 5

7. Two positions of a dice are shown below. When number '1' is on the top. What number will be at the bottom?



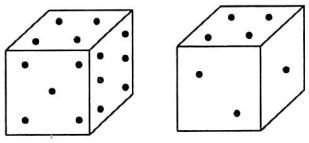
(A) 3 (B) 5 (C) 2 (D) 6

8. Two positions of a cube with its surfaces numbered are shown below. When the surface 4 touch the bottom, what surface will be on the top?



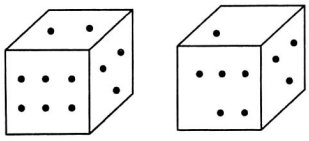
(A) 1 (B) 2 (C) 5 (D) 6

9. Here two positions of dice are shown. If there are two dots in the bottom, then how many dots will be on the top?



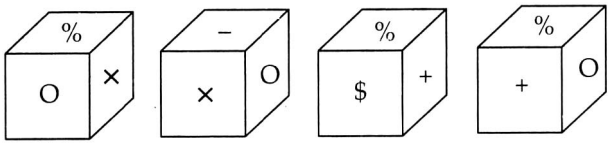
(A) 2 (B) 3 (C) 5 (D) 6

10. Two positions of dice are shown below. How many points will be on the top when 2 points are at the bottom?



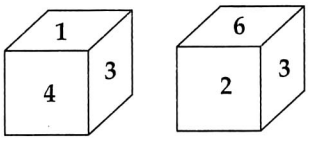
(A) 6 (B) 5 (C) 4 (D) 1

11. Here 4 positions of a cube are shown. Which sing will be opposite to '+'?



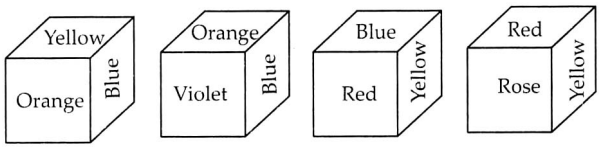
(A) % (B) – (C) × (D) $

12. Two positions of a cubical are shown. When 5 is at the top which number will be at bottom?



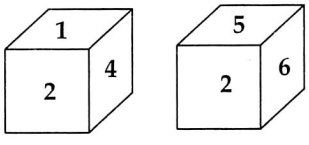
(A) 1 (B) 2 (C) 3 (D) 4

13. From the four positions of a dice given below, find the color which is opposite to yellow



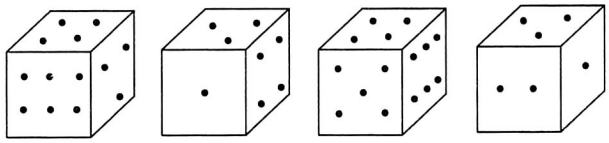
(A) Violet (B) Red (C) Rose (D) Blue

14. When the digit 5 is on the bottom then which number will be on its upper surface?



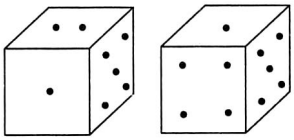
(A) 1 (B) 3 (C) 4 (D) 6

15. How many points will be on the face opposite to the face which contains 3 points?



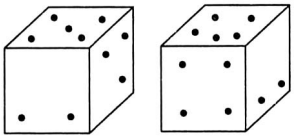
(A) 2 (B) 4 (C) 5 (D) 6

16. Observe the dots on the dice (one to six dots) in the following figures. How many dots are contained on the face opposite to the containing four dots?



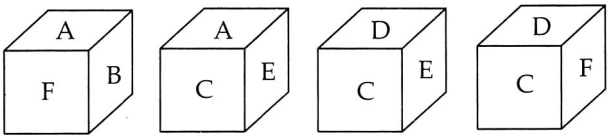
(A) 2 (B) 3 (C) 5 (D) 6

17. Two positions of a dice are shown below. When 3 points are at the bottom, how many points will be at the top?



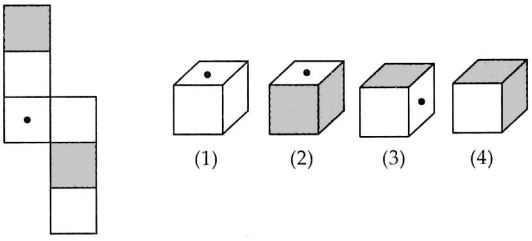
(A) 2 (B) 5 (C) 4 (D) 6

18. From the positions of a cube are shown below, which letter will be on the face opposite to face with 'A'?



(A) D (B) B (C) C (D) F

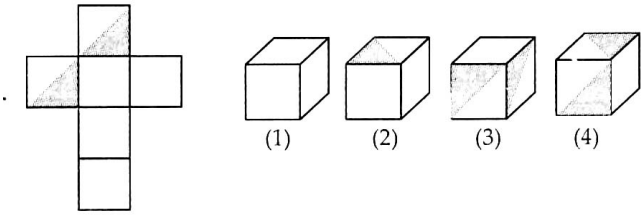
19. The figure given on the left hand side in each of the following questions is folded to form a box. Choose from the alternatives (1), (2), (3) and (4) the boxes that is similar to the box formed.



(A) 2 and 3 only (B) 1, 3 and 4 only

(C) 2 and 4 only (D) 1 and 4 only

20. .



(A) 1 and 4 only (B) 3 and 4 only

(C) 1 and 2 only (D) 1, 2 and 4 only

ASSIGNMENT-2

Directions (21 to 22) : Select the correct alternative from the given choices.

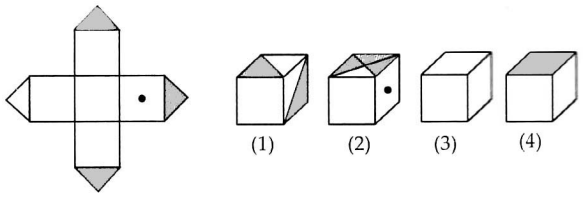
21. If five cuts are made on a cube, what is the minimum number of pieces obtained?

(A) 18 (B) 6 (C) 16 (D) 25

22. If six cuts are made on a cube, what is the maximum number of identical pieces obtained?

(A) 16 (B) 18 (C) 36 (D) 27

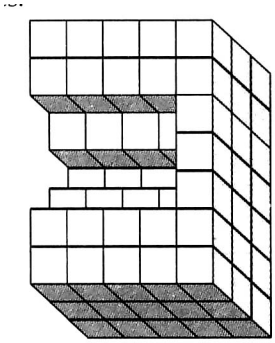
23. The figures given on the left hand side in each of the following questions is folded to form a box. Choose from the alternatives (1), (2), (3) and (4) the boxes that is similar to the box formed



(A) 1 and 2 only (B) 2 and 4 only

(C) 2 and 3 only (D) 1 and 4 only

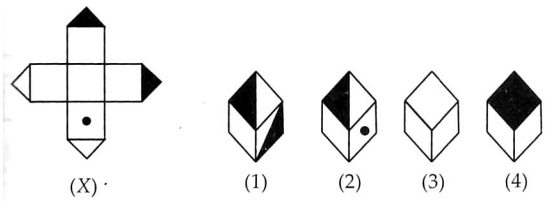
24. Count the cubes



(A) 91 (B) 90 (C) 88 (D) 89

Direction (25-29) : The sheet of paper shown in the figure (X) given on the left hand side, in each problem, is folded to form a box. Choose from amongst the alternatives (1), (2), (3) and (4), the boxes that are similar to the box that will be formed.

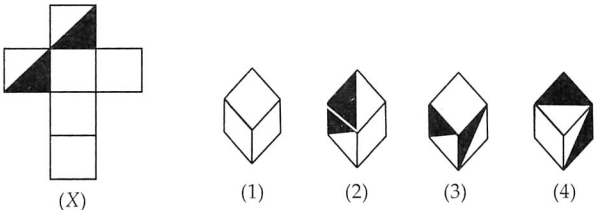
25. Choose the box that is similar to the box formed from the given sheet of paper (X)



(A) 1 and 2 only (B) 2 and 4 only

(C) 2 and 3 only (D) 1 and 4 only

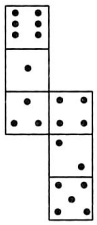
26. Choose the box that is similar to the box formed from the given sheet of paper (X)



(A) 1 and 4 only (B) 3 and 4 only

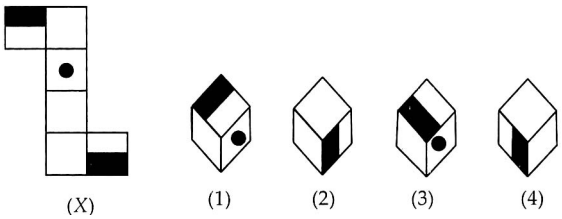
(C) 1 and 2 only (D) 2 and 3 only

27. How many dots lie opposite to the face having three dots, when the given figure is folded to form a cube?



(A) 1 and 3 only (B) 1 and 4 only (C) 2 and 4 only (D) 3 and 4 only

28. Choose the box that is similar to the box formed from the given sheet of paper (X)



(A) 1 and 2 only (B) 2 and 3 only

(C) 2 and 4 only (D) 1, 2, 3 and 4

Directions for questions 29: These questions are based on the following information.

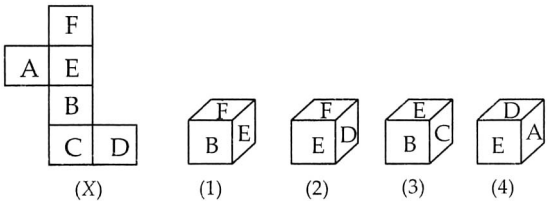
A Cube is painted in black and green, each on three faces such that any two faces with same colour are adjacent to each other. Now this cube is cut into 60 identical pieces using 2, 3 and 4 cuts parallel to different faces.

29. How many smaller pieces have both the colours on them?

(A) 9 (B) 18 (C) 6 (D) 24

Direction (30 to 38): The sheet of paper shown in the figure (X) given on the left hand side, in each problem, is folded to form a box. Choose from amongst the alternatives (1), (2), (3) and (4), the boxes that are similar to the box that will be formed.

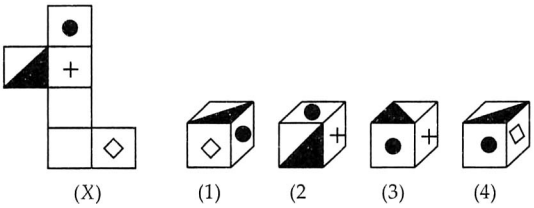
30. Choose the box that is similar to the box formed from the given sheet of paper (X)



(A) 1 only (B) 2 only

(C) 1 and 3 only (D) 1, 2, 3 and 4 only

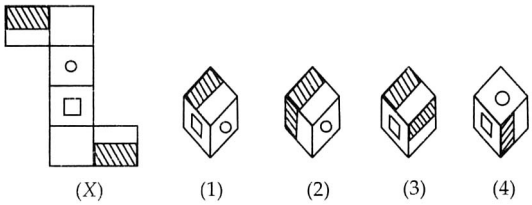
31. Choose the box that is similar to the box formed the given sheet of paper (X)



(A) 1 only (B) 2 only

(C) 3 only (D) 4 only

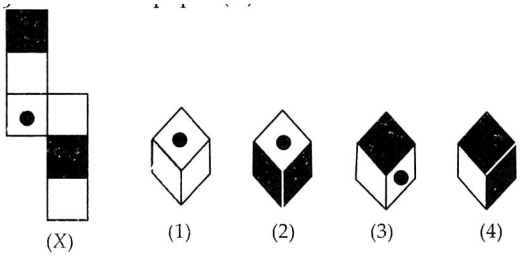
32. Choose the box that is similar to the box formed from the given sheet of paper (X)



(A) 1 only (B) 2 only

(C) 3 only (D) 4 only

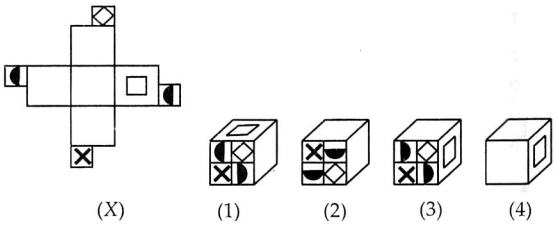
33. Choose the box that is similar to the box formed from the given sheet of paper (X)



(A) 2 and 3 only (B) 1, 3 and 4 only

(C) 2 and 4 only (D) 1 and 4 only

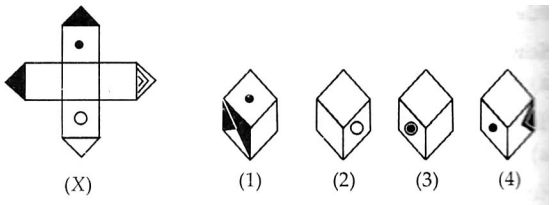
34. Choose the box that is similar to the box formed from the given sheet of paper (X)



(A) 1, 2 and 3 only (B) 2 and 3 only

(C) 1, 3 and 4 only (D) 2, 3 and 4 only

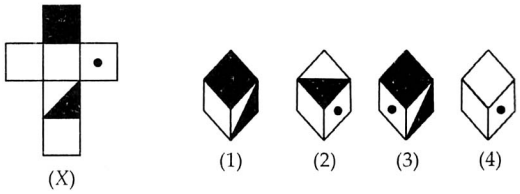
35. Choose the box that is similar to the box formed from the given sheet of paper (X)



(A) 1 and 2 only (B) 1, 2 and 3 only

(C) 1 and 3 only (D) 1, 2, 3 and 4

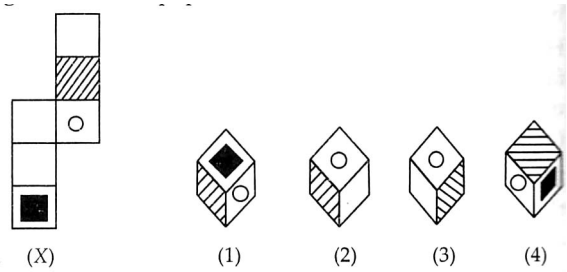
36. Choose the box that is similar to the box formed from the given sheet of paper (X)



(A) 1 and 3 only (B) 2, 3 and 4 only

(C) 2 only (D) 3 and 4 only

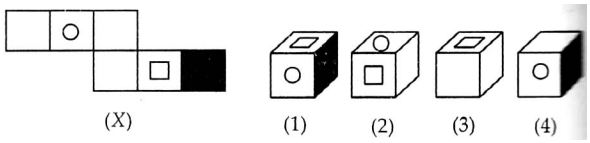
37. Choose the box that is similar to the box formed from the given sheet of paper (X)



(A) 1 and 2 only (B) 1, 2 and 4 only

(C) 1 and 4 only (D) 1, 2 and 3

38. Choose the box that is similar to the box formed from the given sheet of paper (X)



(A) 1 and 2 only (B) 1, 2 and 3 only

(C) 4 only (D) 1, 2, 3 and 4

Directions (39 to 40) These questions are based on the following information.

Each of 125 small identical cubes are painted black on all faces and all these cubes are arranged to form a large cube. This large cube is placed at the corner of a large room and all the visible faces of this cube are painted white.

39. How many smaller cubes have at least two faces with white paint ?

(A) 13 (B) 16 (C) 15 (D) 10

40. How many smaller cubes have no face painted white ?

(A) 27 (B) 100 (C) 64 (D) 81

PREVIOUS YEAR NTSE QUESTIONS

Directions (41 to 42) : Select the correct alternative from the given choices.

41. If two, three and four cuts are made parallel to different faces of a cube, then what is the number of identical pieces obtained?

(A) 60 (B) 30 (C) 48 (D) 24

42. What is minimum number of cuts required to cut a cube into 216 identical pieces ?

(A) 36 (B) 18 (C) 15 (D) 12

Directions (43 to 45): These questions are based on the following information.

Each of 216 small identical cubes are painted blue on all faces and all these cubes are arranged to form a large cube. Now all the faces of the large cube are painted pink.

43. How many small cubes have only one colour on them?

(A) 96 (B) 125 (C) 64 (D) 48

44. How many small cubes have exactly two faces pointed pink?

(A) 36 (B) 48 (C) 64 (D) 80

45. How many small cubes have exactly three faces painted blue?

(A) 8 (B) 4 (C) 2 (D) 6

Directions (46 to 49): These questions are based on the following information.

216 small identical cubes are arranged to form a large cube. Now three faces of the large cube are painted yellow, of which on two faces are opposite each other. Of the remaining faces, two are painted green and the other black.

46. How many small cubes have all three colours on them?

(A) 1 (B) 2 (C) 3 (D) 4

47. How many small cubes have exactly two colours on them?

(A) 28 (B) 30 (C) 37 (D) 44

48. How many small cubes have exactly three faces pointed in the same colour ?

(A) 0 (B) 1 (C) 2 (D) 12

49. How many small cubes have black and green but not yellow colour on them ?

(A) 8 (B) 9 (C) 10 (D) 12

Directions (50) : These questions are based on the following information.

A Cube is painted in black and green, each on three faces such that any two faces with same colour are adjacent to each other. Now this cube is cut into 60 identical pieces using 2, 3 and 4 cuts parallel to different faces.

50. How many smaller pieces have exactly two faces painted in black?

(A) 5 (B) 9 (C) 18 (D) 27

CHAPTER

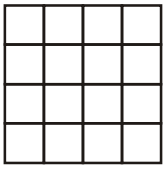
29 Counting Figures

Counting Figures

Questions in this chapter involve counting of geometrical figures such as squares, triangles, rectangles, and parallelograms in a given figure. In order to count the figures accurately, we should follow a systematic method. If we adapt a random method for counting the figures, the chances of making mistakes are high. Moreover, it may also result in wasting our valuable time.

Examples

1. Consider a square, which is divided into four parts horizontally and vertically. Count the total number of squares



(A) 25 (B) 30 (C) 35 (D) 40

Solution

(B) Number of 4×4 squares : $1 = 1^2$

Number of 3×3 squares : $4 = 2^2$

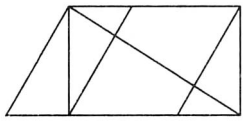
Number of 2×2 squares : $9 = 3^2$

Number of 1×1 squares : $16 = 4^2$

Thus, the total number of squares = $1^2 + 2^2 + 3^2 + 4^2 = 30$

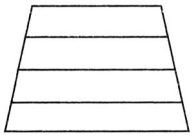
ASSIGNMENTS – 1

1. How many quadrilaterals are there in the given figures?



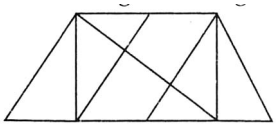
(A) 10 (B) 11 (C) 12 (D) 13

2. How many trapeziums are there in the given figures?



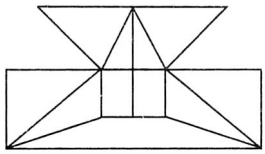
(A) 10 (B) 12 (C) 14 (D) 8

3. Find the number of triangles in the given figure



(A) 8 (B) 10 (C) 12 (D) 14

4. Find the minimum number of straight lines required to make the given figure

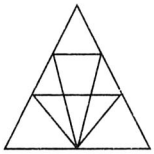


(A) 16 (B) 17 (C) 18 (D) 19

5. Find the number of triangles in the given figure.

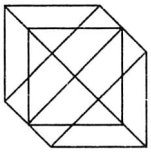
(A) 22 (B) 24 (C) 26 (D) 28

6. Find the number of triangles in the given figure.



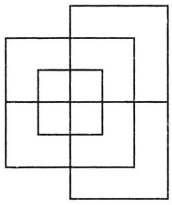
(A) 12 (B) 18 (C) 22 (D) 16

7. Find the number of triangles in the given figure.



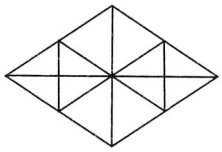
(A) 18 (B) 20 (C) 24 (D) 27

8. Find the minimum number of straight lines required to make the given figure



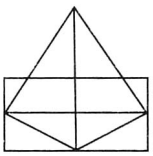
(A) 13 (B) 15 (C) 17 (D) 19

9. Find the number of triangles in the given figure



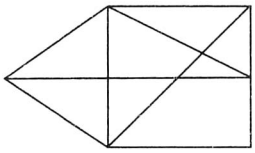
(A) 16 (B) 22 (C) 28 (D) 32

10. Find the number of triangles in the given figure.



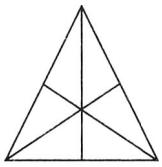
(A) 11 (B) 13 (C) 15 (D) 17

11. Find the number of triangles in the given figure.



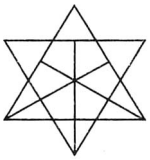
(A) 12 (B) 13 (C) 14 (D) 15

12. Find the number of triangles in the given figure.



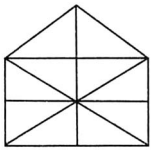
(A) 16 (B) 13 (C) 9 (D) 7

13. Find the number of triangles in the given figures.



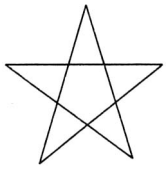
(A) 21 (B) 23 (C) 25 (D) 27

14. Find the number of triangles in the given figure



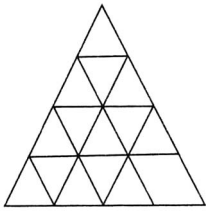
(A) 10 (B) 19 (C) 21 (D) 23

15. Find the number of triangles in the given figures.



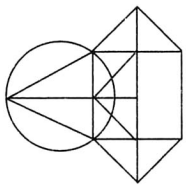
(A) 5 (B) 6 (C) 8 (D) 10

16. Find the minimum number of straight lines required to make the given figure.



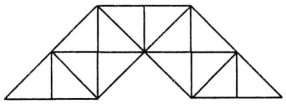
(A) 9 (B) 11 (C) 15 (D) 16

17. Find the number of triangles in the given figure



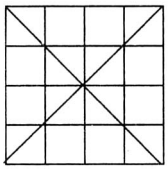
(A) 10 (B) 12 (C) 14 (D) 16

18. Find the number of triangles in the given figures.



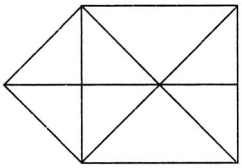
(A) 23 (B) 27 (C) 29 (D) 31

19. Find the number of triangles in the given figure.



(A) 36 (B) 40 (C) 44 (D) 48

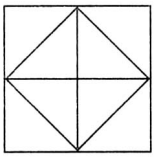
20. Find the number of triangles in the given figure.



(A) 15 (B) 16 (C) 17 (D) 18

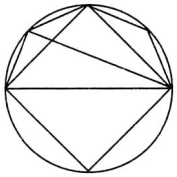
ASSIGNMENTS – 2

21. Find the number of triangles in the given figure.



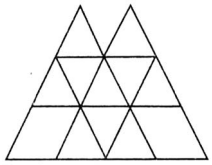
(A) 8 (B) 10 (C) 12 (D) 14

22. Find the number of triangles in the given figure.



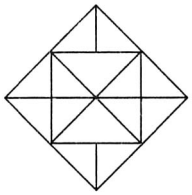
(A) 8 (B) 10 (C) 11 (D) 12

23. Find the number of triangles in the given figure.



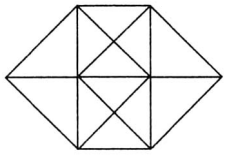
(A) 16 (B) 18 (C) 14 (D) 15

24. Find the number of triangles in the given figure.



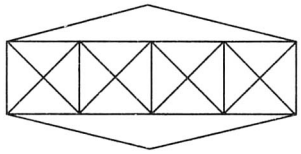
(A) 18 (B) 20 (C) 28 (D) 34

25. Find the number of triangles in the given figure.



(A) 20 (B) 24 (C) 28 (D) 32

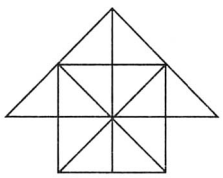
26. Count the number of triangles and squares in the given figure



(A) 36 triangles, 7 squares (B) 38 triangles, 9 squares

(C) 40 triangles, 7 squares (D) 42 triangles, 9 squares

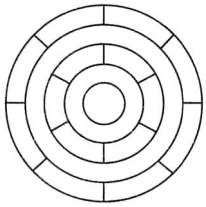
27. Count the number of triangles and squares in the given figures



(A) 26 triangles, 5 squares (B) 28 triangles, 5 squares

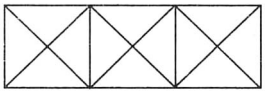
(C) 26 triangles, 6 squares (D) 28 triangles, 6 squares

28. What is the minimum number of different colours required to paint he given figure such that no two adjacent regions have the same colour?



(A) 3 (B) 4 (C) 5 (D) 6

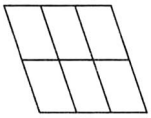
29. Count the number of triangles and squares in the given figure.



(A) 28 triangles, 3 squares (B) 24 triangles, 5 squares

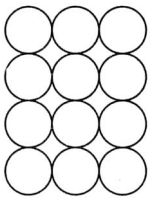
(C) 28 triangles, 5 squares (D) 24 triangles, 3 squares

30. Count the number of parallelogram in the given figure



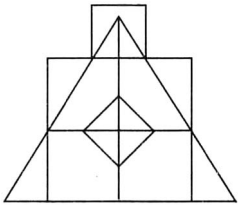
(A) 20 (B) 18 (C) 16 (D) 12

31. In the adjoining figure, if the centres of all the circles are joined by horizontal and vertical lines, then find the number of squares that can be formed



(A) 6 (B) 7 (C) 8 (D) 1

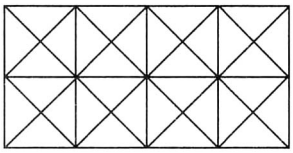
32. Count the number of triangles and squares in the given figure.



(A) 21 triangles, 7 squares (B) 18 triangles, 8 squares

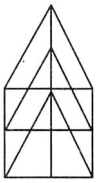
(C) 20 triangles, 8 squares (D) 22 triangles, 7 squares

33. Count the number of squares in the given figures



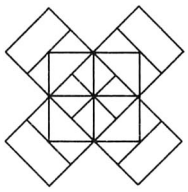
(A) 11 (B) 21 (C) 24 (D) 26

34. How many triangles and parallelograms are there in the following figures



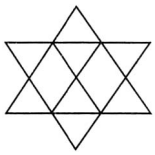
(A) 21, 17 (B) 19, 13 (C) 21, 15 (D) 19, 17

35. Count the number of squares in the given figure.



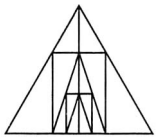
(A) 22 (B) 20 (C) 18 (D) 14

36. Count the number of parallelogram in the given figure.



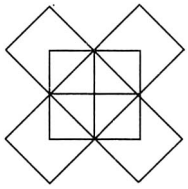
(A) 8 (B) 11 (C) 12 (D) 15

37. How many triangles are there in the given figure?



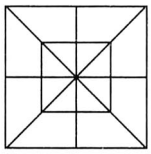
(A) 16 (B) 22 (C) 20 (D) 18

38. Count the number of rectangles in the given figure.



(A) 20 (B) 18 (C) 16 (D) 15

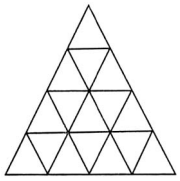
39. Count the number of triangles and squares in the given figure



(A) 28 triangles, 10 squares (B) 28 triangles, 8 squares

(C) 32 triangles, 10 squares (D) 32 triangles, 8 squares

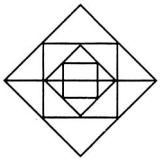
40. Count the number of parallelogram in the given figure.



(A) 47 (B) 45 (C) 41 (D) 39

PREVIOUS YEAR NTSE QUESTIONS

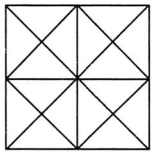
41. How many triangles and squares are there in the given figure?



(A) 28 triangles, 5 squares (B) 26 triangles, 5 squares

(C) 28 triangles, 4 squares (D) 26 triangles, 4 squares

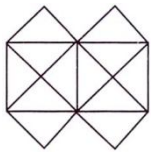
42. Count the number of triangles and square in the given figure.



(A) 44 triangles, 10 squares (B) 14 triangles, 16 squares

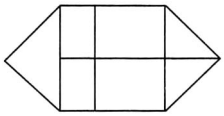
(C) 27 triangles, 6 squares (D) 36 triangles, 9 squares

43. What is the minimum number of straight lines that is needed to construct the figure?



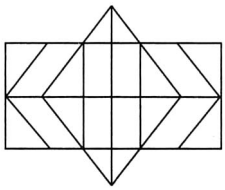
(A) 11 (B) 13 (C) 15 (D) 21

44. How many rectangles are there in the given figure



(A) 10 (B) 9 (C) 8 (D) 7

45. Determine the number of rectangles and hexagons in the given figure



(A) 30, 5 (B) 32, 3 (C) 28, 5 (D) 30, 3

CHAPTER

30

Mirror Image

Mirror Image

The image of an object as seen in a mirror is known as mirror image.

In mirror image of an object, right side of the object appears at left side and vice versa.

There are some objects whose mirror images are identical to the objects. The objects given below are such objects.

A, H, I, M, O, T, U, V, W, X and Y

Mirror Image of Numbers

Numbers	Mirror Image
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9
0	0

Mirror Image of Capital Letters

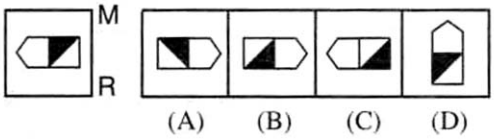
Letters	Mirror Image	Letters	Mirror Image
A	A	N	N
B	B	O	O
C	C	P	P
D	D	Q	Q
E	E	R	R
F	F	S	S
G	G	T	T
H	H	U	U
I	I	V	V
J	J	W	W
K	K	X	X
L	L	Y	Y
M	M	Z	Z

Mirror Images of Small Letters

Letters	Mirror Image	Letters	Mirror Image
a	a	o	o
b	d	p	q
c	c	q	p
d	b	r	r
e	e	s	s
f	f	t	t
g	g	u	u
h	h	v	v
i	i	w	w
j	j	x	x
k	k	y	y
l	l	z	z
m	m		
n	n		

Examples

Problem Figure **Answer Figures**

1. 

Solution

(A) In problem figure two diagrams are joint to a make one diagram. If the mirror images of then two are seen separately then images will be seen as in answer figure (A). Because the mirror image of will be as and the mirror image of will be as . The image of the right will be at left and vice versa.

ASSIGNMENTS – 1

1. 

(X)

(A)  (B)  (C)  (D) 

2. 

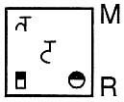
(X)

(A)  (B)  (C)  (D) 

3. 

(X)

(A)  (B)  (C)  (D) 

4. 

(X)

(A)  (B)  (C)  (D) 

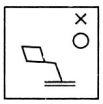
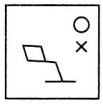
5. 

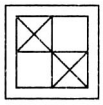
(X)

(A)  (B)  (C)  (D) 

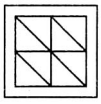
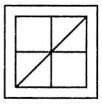
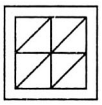
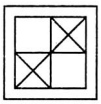
6. 

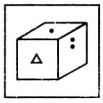
(X)

(A)  (B)  (C)  (D) 

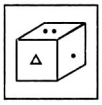
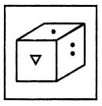
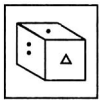
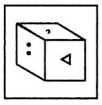
7. 

(X)

(A)  (B)  (C)  (D) 

8. 

(X)

(A)  (B)  (C)  (D) 

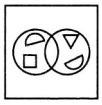
9. 

(X)

(A)  (B)  (C)  (D) 

10. 

(X)

(A)  (B)  (C)  (D) 

11. 

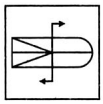
(X)

(A)  (B)  (C)  (D) 

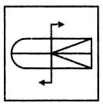
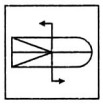
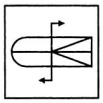
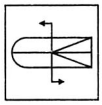
12. 

(X)

(A)  (B)  (C)  (D) 

13. 

(X)

(A)  (B)  (C)  (D) 

14. 

(X)

(A)  (B)  (C)  (D) 

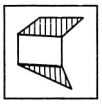
15. 

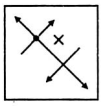
(X)

(A)  (B)  (C)  (D) 

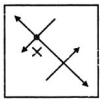
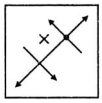
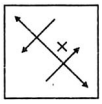
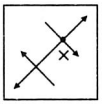
16. 

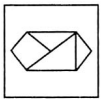
(X)

(A)  (B)  (C)  (D) 

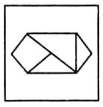
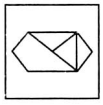
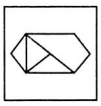
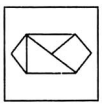
17. 

(X)

(A)  (B)  (C)  (D) 

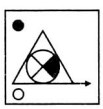
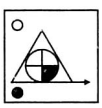
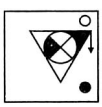
18. 

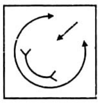
(X)

(A)  (B)  (C)  (D) 

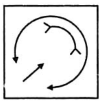
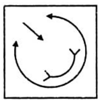
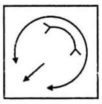
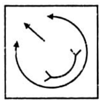
19. 

(X)

(A)  (B)  (C)  (D) 

20. 

(X)

(A)  (B)  (C)  (D) 

ASSIGNMENTS -2

21. LATERAL
(A) ΓAᴚELAΓ (B) JAЯƎTAJ (C) LARETAL (D) JAЯƎTAL

22. QUANTITATIVE
(A) ỌUANTITATIVE (B) EVITATITNAUQ
(C) QUAИTITATIVƎ (D) ƎVITATITИAUϘ

23. JUDGEMENT
(A) TNEMEGDUJ (B) TИƎMƎGDՈſ (C) TИƎMƎGDUſ (D) JUDGƎMƎNT

24. EMANATE
(A) EWVNVLE (B) ƎTAИAMƎ (C) ETANAME (D) EATEMAN

25. KALINGA261B
(A) KVΓINGV2Ɩ6B (B) B162AGNILⱯK (C) B261KALINGA (D) B162AGИILAꓘ

26. COLONIAL
(A) LAINOLOC (B) JAINOLOƆ (C) ΓAIИOΓOC (D) JAINOLOƆ

27. BR4AQ16HI
(A) IH61QA4RB (B) IH61QA4RB (C) IH61ỌA4RB (D) IH61ỌA4RB

28. R4E3N2U
(A) ЯƎ4И2U3 (B) U2N3E4R (C) U2NƐƎ4Я (D) U2NƐƎ4R

29. DL3N469F
(A) F964N3LD (B) ꟻ964ИƐꓷ (C) F469N3DL (D) ꟻ469ИƐꓷL

30. 15UP5062
(A) 5062UP15 (B) 26O5PU51 (C) 26O5ꟼU51 (D) 26O5ꟼUP51

31. NiCaRaGuA
(A) AUGaRaCiN (B) AnGaRaCiN (C) AnGaRaCiN (D) AuGaRaCiN

32. DBV8476
(A) 6748VBD (B) 8476DBV (C) 6748VBD (D) 674VBD

33. T3S4P5H6
(A) 6HS4P4S3T (B) H6P5S4T3 (C) 9H5P4S3T (D) 6H5P4S3T

34. ANS43Q12
(A) ANS43Q12 (B) 21Q34SNA (C) SNA34Q21 (D) 12Q43ANS

35. TARAIN1014A
(A) A4101NIARAT (B) A4101NIARAT (C) A1014IAЯAIN (D) A4101NIARAT

36. MIRROR

(A) ЯOЯЯ MI (B) ЯЯOЯ IM (C) RORRIM (D) ЯOЯЯIM

37. IMAGE

(A) Ǝ GA MI (B) ƎGAMI (C) ƎGAMI (D) EGAMI

38. EFFECTIVE

(A) ƎVITƆƎꟻꟻƎ (B) EVITCEFFE (C) ƎꟻꟻƎƆTIVƎ (D) ƎVIꓕƆƎꟻꟻƎ

39. UTZFY6KH

(A) HK9YꟻZꓕU (B) UTZꟻ⅄9KH (C) Hꓘδ⅄ꟻZꓕU (D) HꓘδYꟻZTU

40. BANK

(A) KNAB (B) ꓘИ AB (C) KИAB (D) ꓘИ AB

CHAPTER

31 Classification

Classification

In classification the problem figures themselves are also the answer figures. Out of five figure A, B, C, D and E four are similar in a certain way. One figure is not like the other four. This means that four figures belongs to one class. The question is, which one of the figures does not belong to this class. The candidate has to find it.

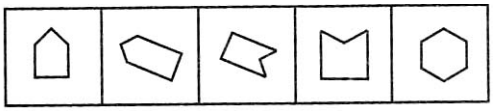
Type I Figure based on the number of lines

Type II Figure based on the arrangement of lines

Type III Figure based on shape of diagrams

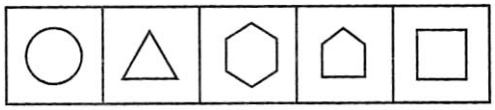
Type IV Figure based on the parts of the diagrams

Examples

1. 

Solution

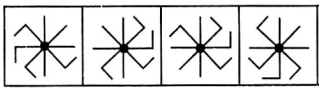
(E) Except (E) all the figures are made of five lines but the figure in (E) is of six lines. Hence odd figure is in answer figure (E)

2. 

Solution

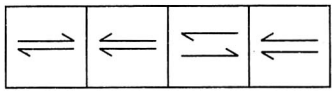
(A) Except (A) in all the other figures the designs are made of straight lines which in figure (A) there is a circle which is not made of straight line.

ASSIGNMENT-1

1. 

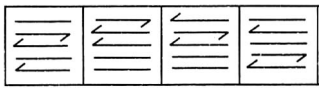
(1) (2) (3) (4)

(A) (1) (B) (2) (C) (3) (D) (4)

2. 

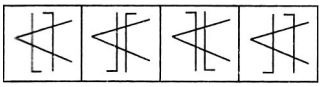
(1) (2) (3) (4)

(A) (1) (B) (2) (C) (3) (D) (4)

3. 

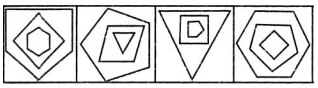
(1) (2) (3) (4)

(A) (1) (B) (2) (C) (3) (D) (4)

4. 

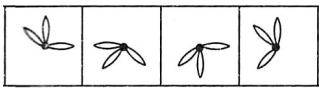
(1) (2) (3) (4)

(A) (1) (B) (2) (C) (3) (D) (4)

5. 

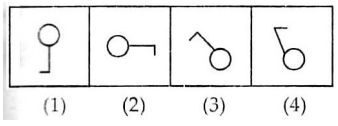
(1) (2) (3) (4)

(A) (1) (B) (2) (C) (3) (D) (4)

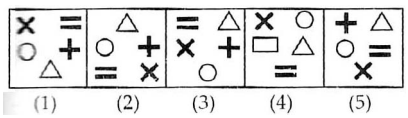
6. 

(1) (2) (3) (4)

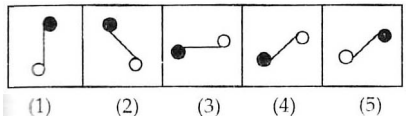
(A) (1) (B) (2) (C) (3) (D) (4)

7. 

(A) (1) (B) (2) (C) (3) (D) (4)

8. 

(A) (1) (B) (2) (C) (3) (D) (4)

9. 

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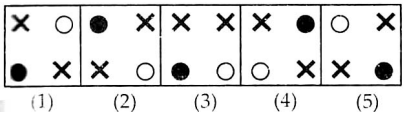
10. 

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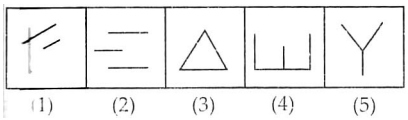
11. 

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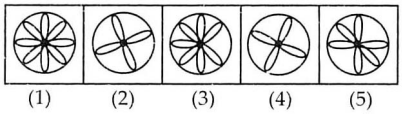
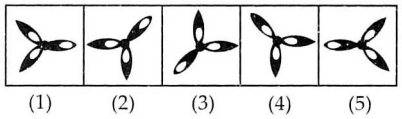
12. 

(A) (1) (B) (2) (C) (3) (D) (4)

13. 

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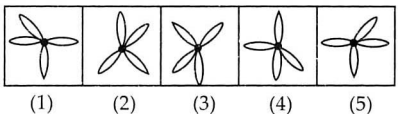
14. 

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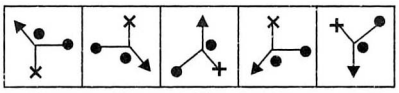
15. 

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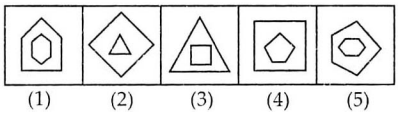
16. 

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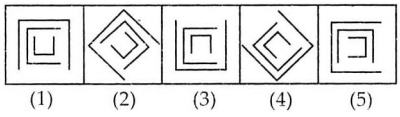
17. 

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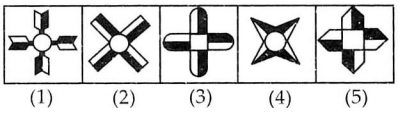
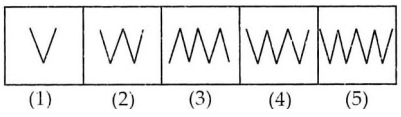
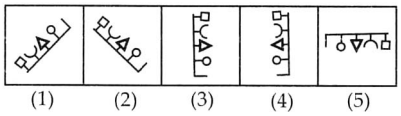
18. 

(A) (1) (B) (2) (C) (3) (D) (4)

19. 

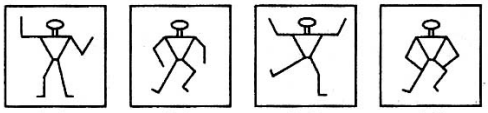
(A) (1) (B) (2) (C) (3) (D) (4)

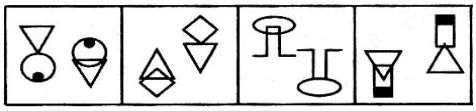
20. 

(A) (1) (B) (2) (C) (3) (D) (4)

ASSIGNMENT-2

Direction : Out of the set of problem figures, lies one figure which is one among the answer figure itself. The problem figure possess among each other some relationship. But one of these figures does not possess the same relationship as other figures. We have to find out odd man figure from the options available in the given figures.

21. 
(A) (B) (C) (D)

22. 
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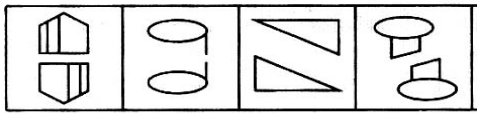
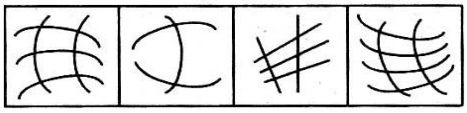
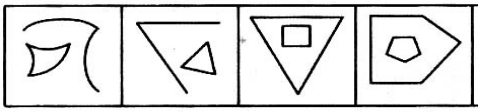
23. 
(A) (B) (C) (D)

24. 
(A) (B) (C) (D)

25. 
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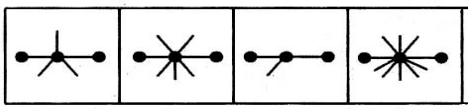
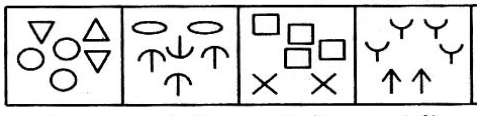
26. 
(A) (B) (C) (D)

27. 
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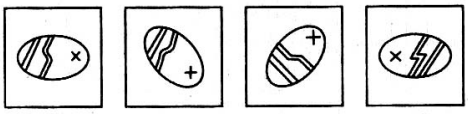
28. 
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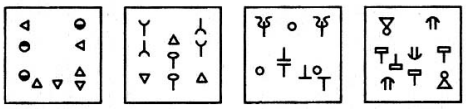
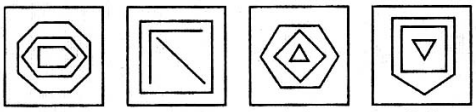
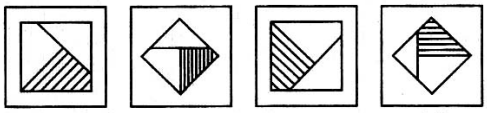
29. 

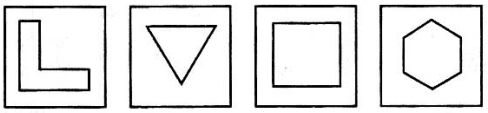
(A) (B) (C) (D)

30. 

(A) (B) (C) (D)

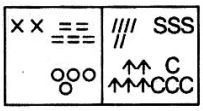
31. 

(A) (B) (C) (D)

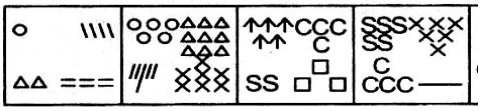
32. 

(A) (B) (C) (D)

33. Problem Figure

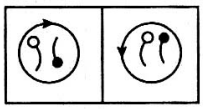


Answer Figure

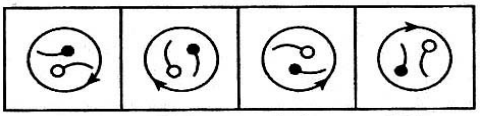


(A) (B) (C) (D)

34. Problem Figure

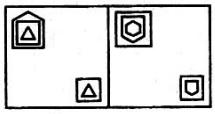


Answer Figure

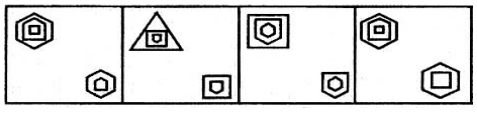


(A) (B) (C) (D)

35. Problem Figure

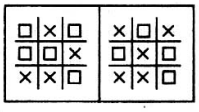


Answer Figure

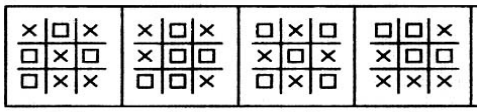


(A) (B) (C) (D)

36. Problem Figure

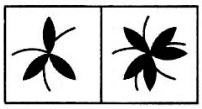


Answer Figure

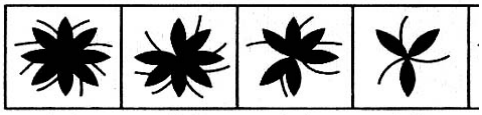


(A) (B) (C) (D)

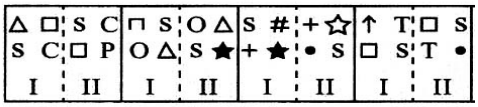
37. Problem Figure



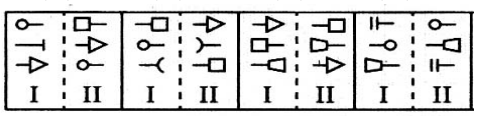
Answer Figure



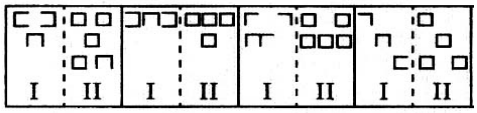
(A) (B) (C) (D)

38. 

(A) (B) (C) (D)

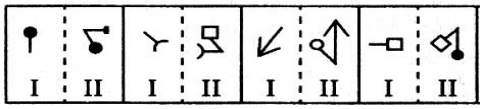
39. 

(A) (B) (C) (D)

40. 

(A) (B) (C) (D)

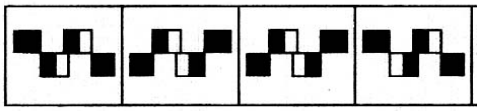
PREVIOUS YEAR NTSE QUESTIONS

41. 

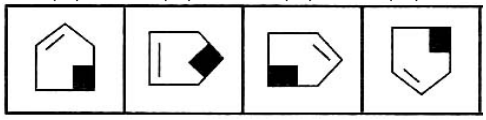
(A) (B) (C) (D)

42. 

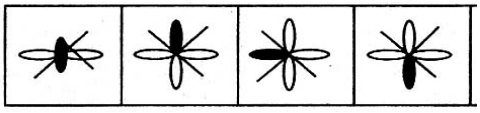
(A) (B) (C) (D)

43. 

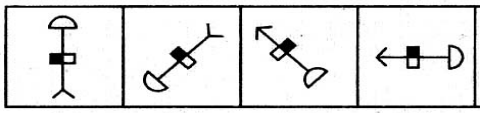
(A) (B) (C) (D)

44. 

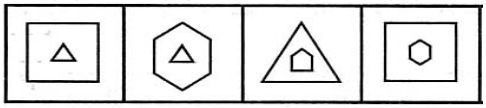
(A) (B) (C) (D)

45. 

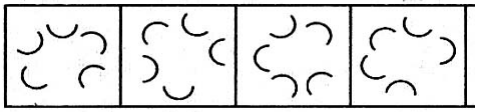
(A) (B) (C) (D)

46. 

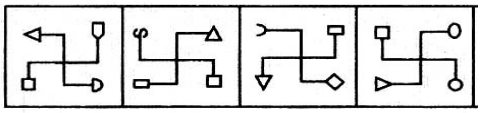
(A) (B) (C) (D)

47. 

(A) (B) (C) (D)

48. 

(A) (B) (C) (D)

49. 

(A) (B) (C) (D)

CHAPTER

32

Series

Series

In this type of questions, there are two sets of figures. One set is called 'Problem Figures' while the other as 'Answer Figures'. Problem figures are first and four in number while answer figures are after and four in number. The answer figures are indicated by A, B, C and D. The five problem figures make a series. That mean they change from left to right in specific order. The question is, if the figure continue to change in the same order what should be the next figure?

Type I – Based on Numbers

Type II – Based on shape and size of figure

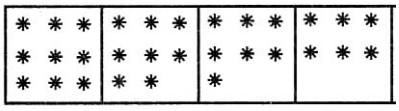
Type III – Based on rotation of figures

Type IV – Based on Position

Type V – Based on Combination and Diffusion

Type VI – Based on Increasing or Decreasing Figure

Examples

1. 

(A) (B) (C) (D)

Solution

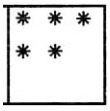
Here from A to B the number of designs in changing from 9 to 8.

From B to C the number of designs is changing from 8 to 7

From C to D the number of designs is changing from 7 to 6

Thus in each subsequent figure the number of designs is decreasing by one.

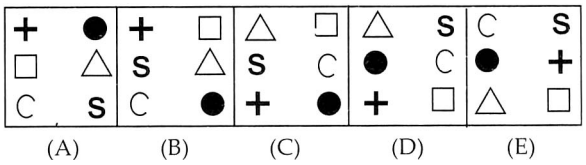
Hence E the number of designs will be 5.

Therefore answer is 

ASSIGNMENT-1

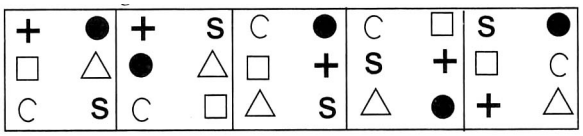
Direction : Problem figures are A to E while answer figures are (1) to (5). The answer figures are indicated by 1, 2, 3, 4 and 5. The five problem figures make a series. That mean they change from left to right in specific order. The question is, if the figure continue to change in the same order what should be the next figure?

1. Problem Figure



(A) (B) (C) (D) (E)

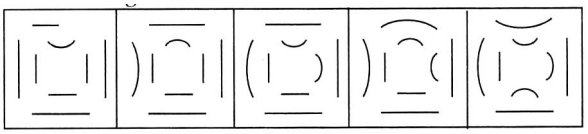
Answer Figure



(1) (2) (3) (4) (5)

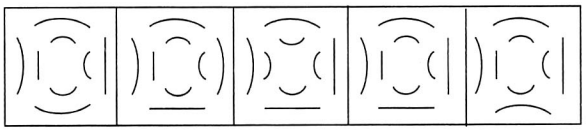
(A) (1) (B) (2) (C) (3) (D) (4)

2. Problem Figure



(A) (B) (C) (D) (E)

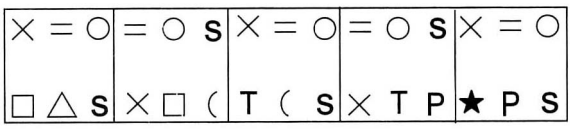
Answer Figure



(1) (2) (3) (4) (5)

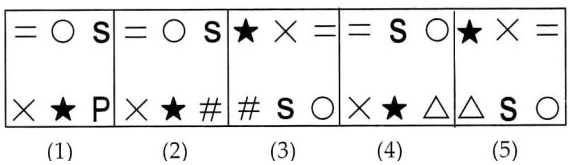
(A) (1) (B) (2) (C) (3) (D) (4)

3. Problem Figure



(A) (B) (C) (D) (E)

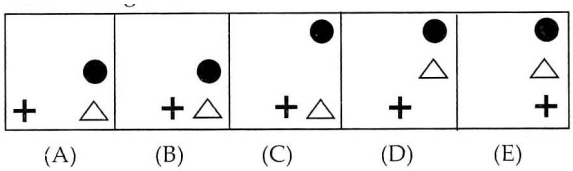
Answer Figure



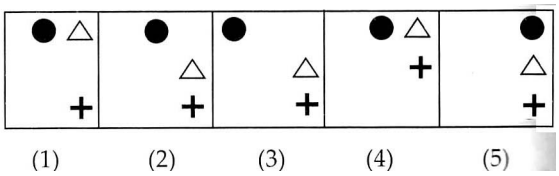
(1) (2) (3) (4) (5)

(A) (1) (B) (2) (C) (3) (D) (4)

4. Problem Figure

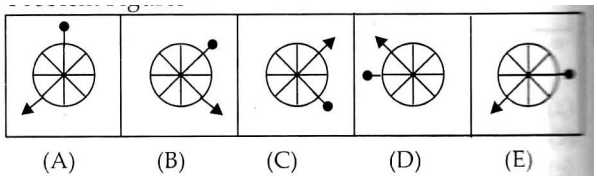


Answer Figure

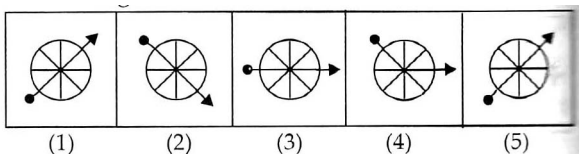


(A) (1) (B) (2) (C) (3) (D) (4)

5. Problem Figure

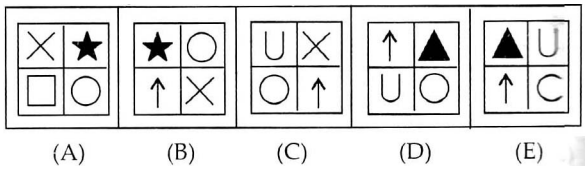


Answer Figure

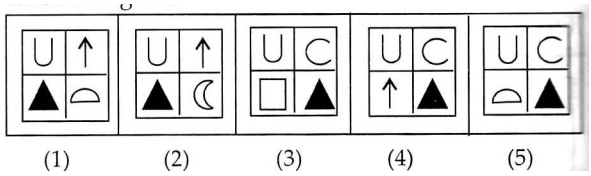


(A) (1) (B) (2) (C) (3) (D) (4)

6. Problem Figure

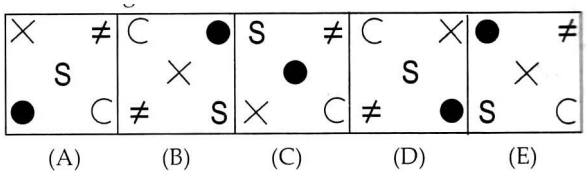


Answer Figure

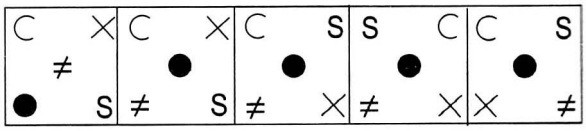


(A) (1) (B) (2) (C) (3) (D) (4)

7. Problem Figure



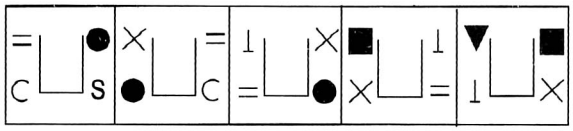
Answer Figure



(1) (2) (3) (4) (5)

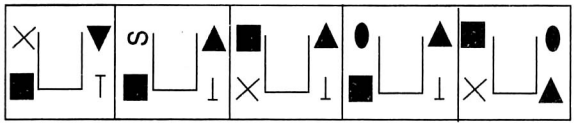
(A) (1) (B) (2) (C) (3) (D) (4)

8. Problem Figure



(A) (B) (C) (D) (E)

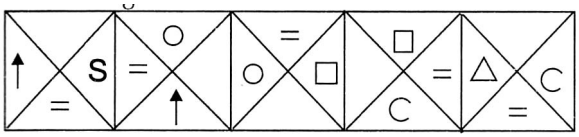
Answer Figure



(1) (2) (3) (4) (5)

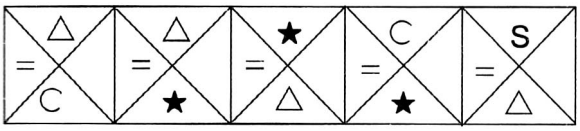
(A) (1) (B) (2) (C) (3) (D) (4)

9. Problem Figure



(A) (B) (C) (D) (E)

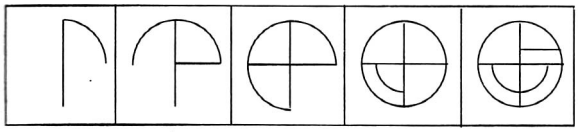
Answer Figure



(1) (2) (3) (4) (5)

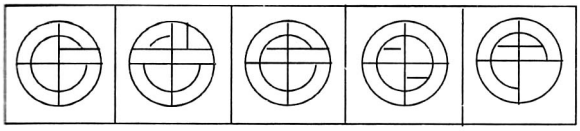
(A) (1) (B) (2) (C) (3) (D) (4)

10. Problem Figure



(A) (B) (C) (D) (E)

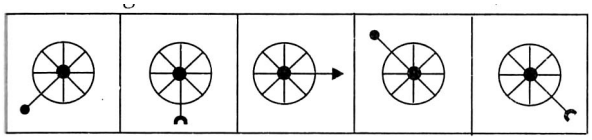
Answer Figure



(1) (2) (3) (4) (5)

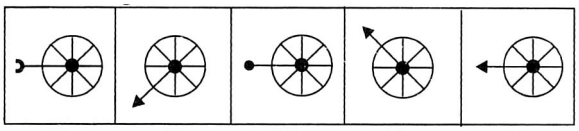
(A) (1) (B) (2) (C) (3) (D) (4)

11. Problem Figure



(A) (B) (C) (D) (E)

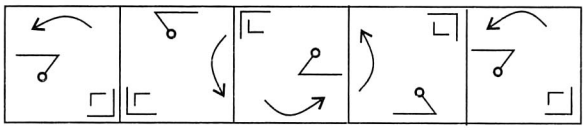
Answer Figure



(1) (2) (3) (4) (5)

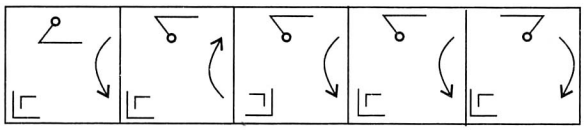
(A) (1) (B) (2) (C) (3) (D) (4)

12. Problem Figure



(A) (B) (C) (D) (E)

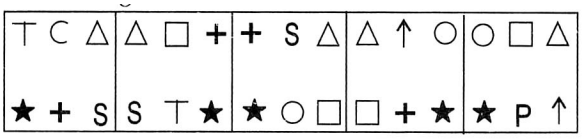
Answer Figure



(1) (2) (3) (4) (5)

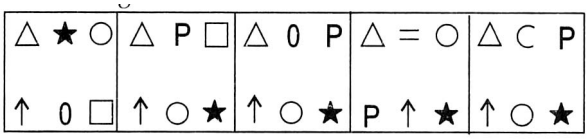
(A) (1) (B) (2) (C) (3) (D) (4)

13. Problem Figure



(A) (B) (C) (D) (E)

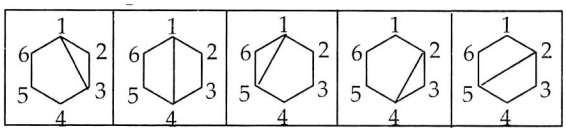
Answer Figure



(1) (2) (3) (4) (5)

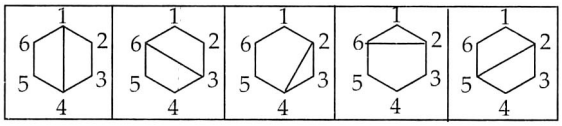
(A) (1) (B) (2) (C) (3) (D) (4)

14. Problem Figure



(A) (B) (C) (D) (E)

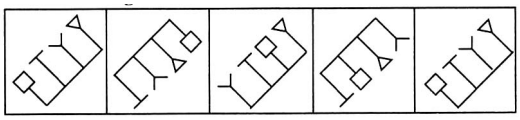
Answer Figure



(1) (2) (3) (4) (5)

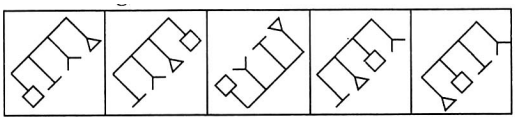
(A) (1) (B) (2) (C) (3) (D) (4)

15. Problem Figure



(A) (B) (C) (D) (E)

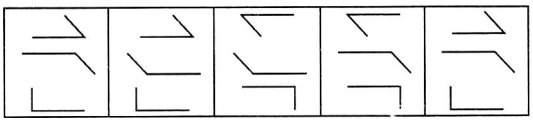
Answer Figure



(1) (2) (3) (4) (5)

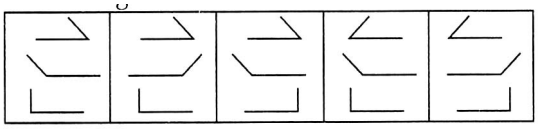
(A) (1) (B) (2) (C) (3) (D) (4)

16. Problem Figure



(A) (B) (C) (D) (E)

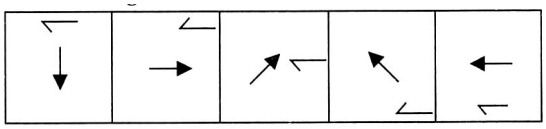
Answer Figure



(1) (2) (3) (4) (5)

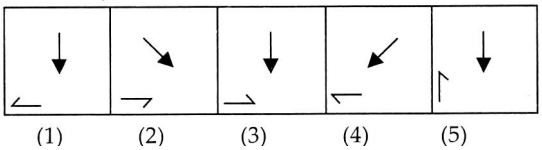
(A) (1) (B) (2) (C) (3) (D) (4)

17. Problem Figure



(A) (B) (C) (D) (E)

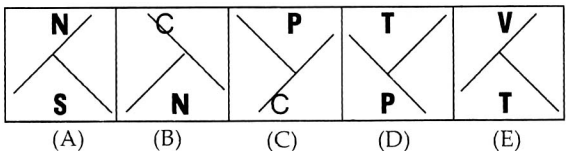
Answer Figure



(1) (2) (3) (4) (5)

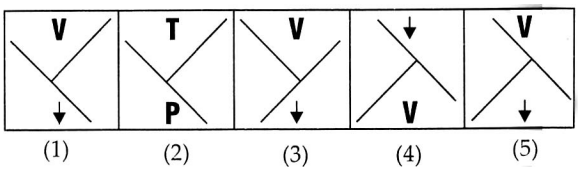
(A) (1) (B) (2) (C) (3) (D) (4)

18. Problem Figure



(A) (B) (C) (D) (E)

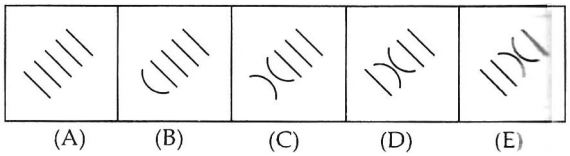
Answer Figure



(1) (2) (3) (4) (5)

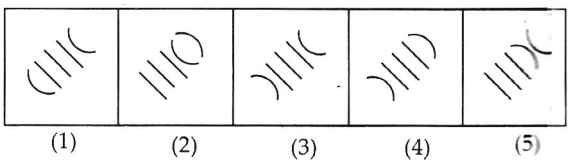
(A) (1) (B) (2) (C) (3) (D) (4)

19. Problem Figure



(A) (B) (C) (D) (E)

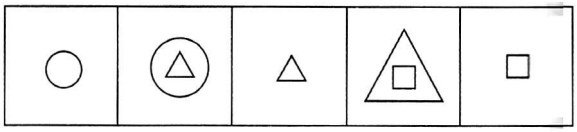
Answer Figure



(1) (2) (3) (4) (5)

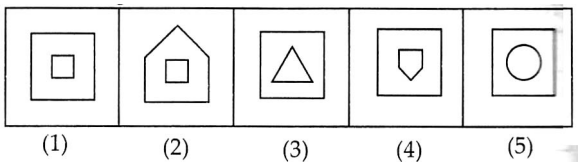
(A) (1) (B) (2) (C) (3) (D) (4)

20. Problem Figure



(A) (B) (C) (D) (E)

Answer Figure



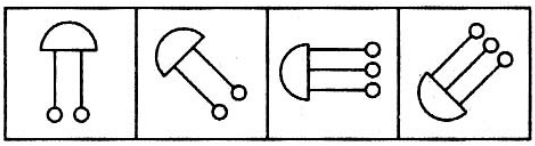
(1) (2) (3) (4) (5)

(A) (1) (B) (2) (C) (3) (D) (4)

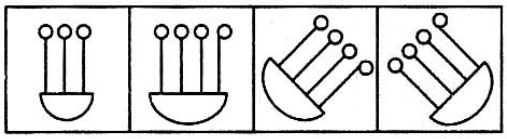
ASSIGNMENT-2

Direction : Problem figures are in some order of sequence. The answer figures are indicated by A, B, C, and D. The four problem figures make a series. That mean they change from left to right in specific order. The question is, if the figure continue to change in the same order what should be the next figure?

21. Problem Figure

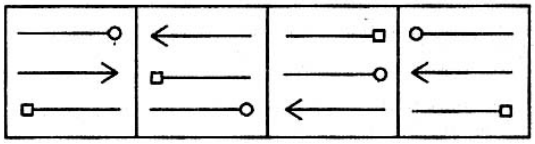


Answer Figure

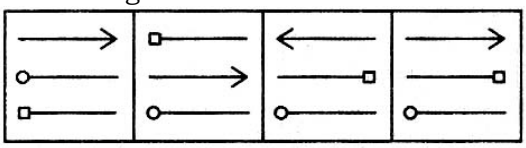


(A) (B) (C) (D)

22. Problem Figure

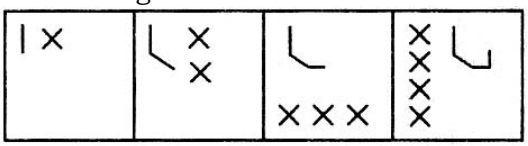


Answer Figure

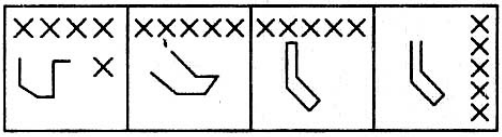


(A) (B) (C) (D)

23. Problem Figure

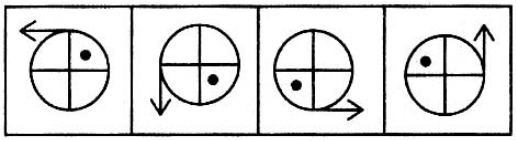


Answer Figure

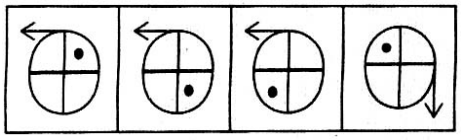


(A) (B) (C) (D)

24. Problem Figure

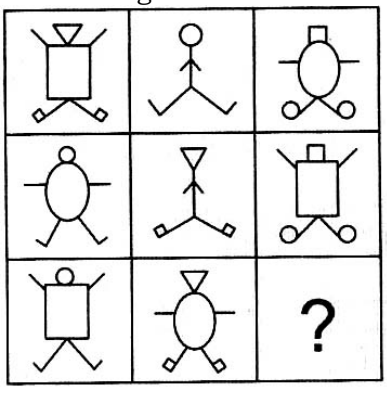


Answer Figure

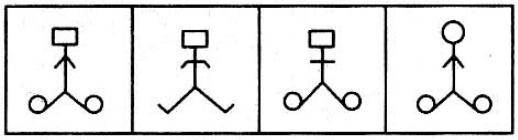


(A) (B) (C) (D)

25. Problem Figure

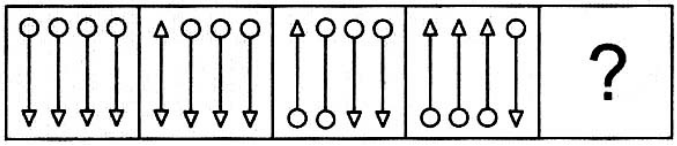


Answer Figure

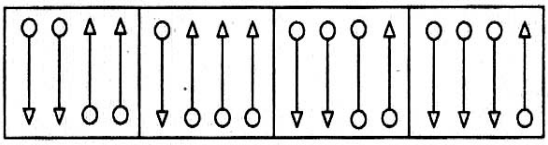


(A) (B) (C) (D)

26. Problem Figure

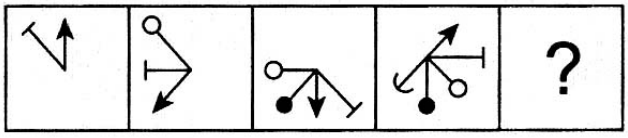


Answer Figure

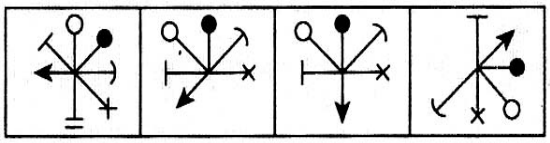


(A) (B) (C) (D)

27. Problem Figure

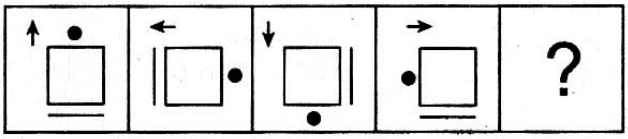


Answer Figure

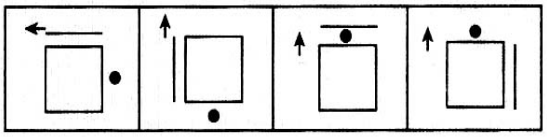


(A) (B) (C) (D)

28. Problem Figure

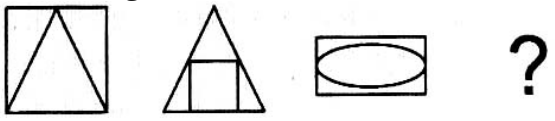


Answer Figure

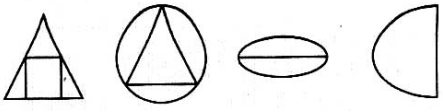


(A) (B) (C) (D)

29. Problem Figure

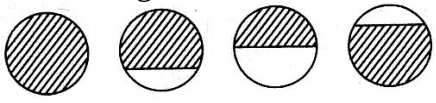


Answer Figure

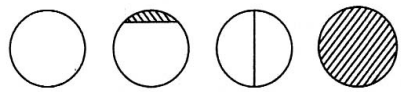


(A) (B) (C) (D)

30. Problem Figure

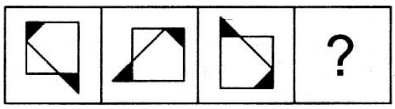


Answer Figure

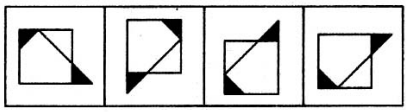


(A) (B) (C) (D)

31. Problem Figure

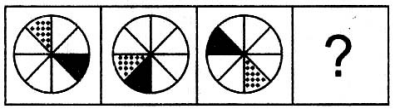


Answer Figure

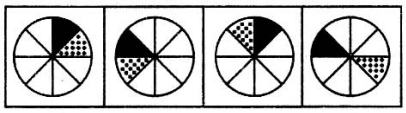


(A) (B) (C) (D)

32. Problem Figure

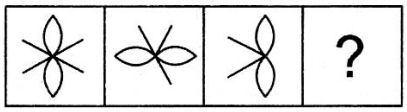


Answer Figure

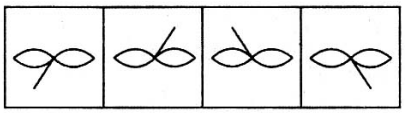


(A) (B) (C) (D)

33. Problem Figure

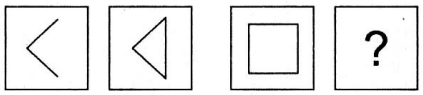


Answer Figure

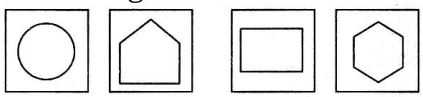


(A) (B) (C) (D)

34. Problem Figure

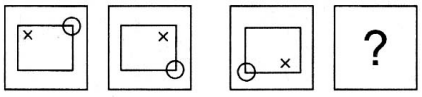


Answer Figure

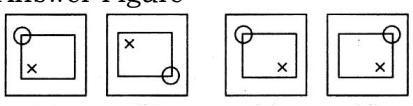


(A) (B) (C) (D)

35. Problem Figure

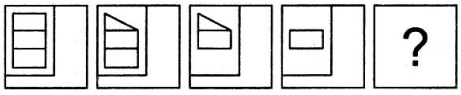


Answer Figure

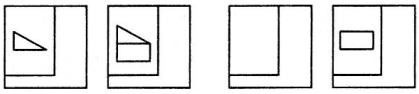


(A) (B) (C) (D)

36. Problem Figure

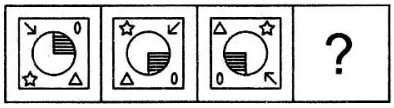


Answer Figure

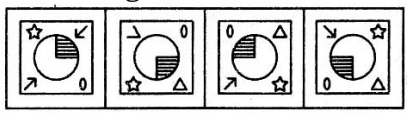


(A) (B) (C) (D)

37. Problem Figure

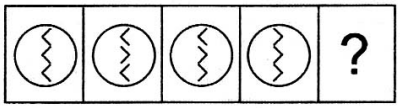


Answer Figure

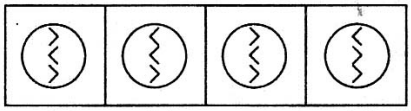


(A) (B) (C) (D)

38. Problem Figure

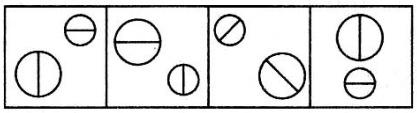


Answer Figure

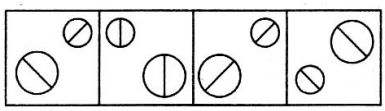


(A) (B) (C) (D)

39. Problem Figure

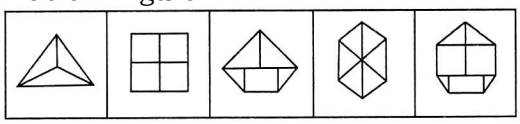


Answer Figure

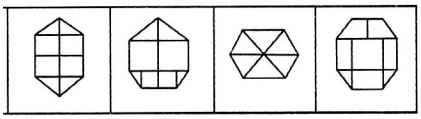


(A) (B) (C) (D)

40. Problem Figure



Answer Figure



(A) (B) (C) (D)

CHAPTER

33

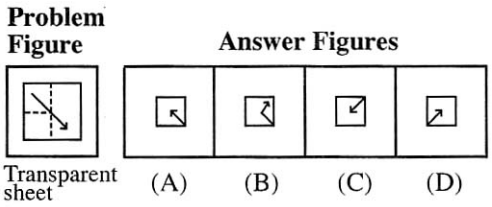
Folding Paper Cutting & Transparent Paper Folding

Folding Paper Cutting and Transparent Paper Folding

This type of questions are based on a transparent sheet. Some marks are made on the transparent sheet and a dotted line is made on the sheet. Then this sheet is folded along the dotted line. Four answer figures are also given with this problem figure. The candidate has to find out that figure among the answer figures, which resembles the pattern formed when the transparent sheet carrying a design is folded along the dotted line.

Examples

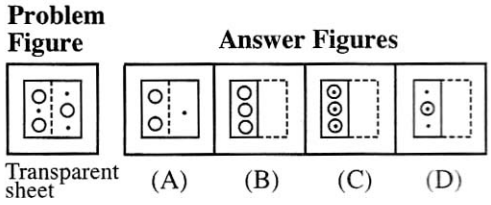
1.



Solution

(A) If the problems figure the arrow indicates the mark on the transparent sheet. The vertical dotted line shows the first fold while the horizontal dotted lines represents the second fold. Thus in folding the transparent sheet we will get the figure as shown in answer figure (A)

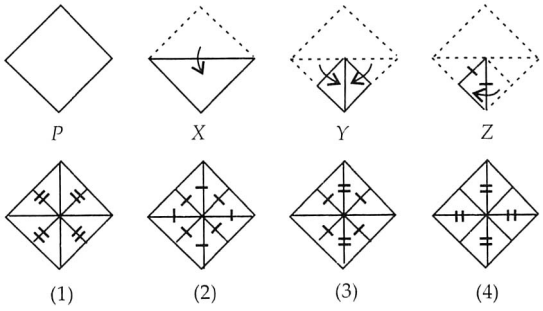
2.



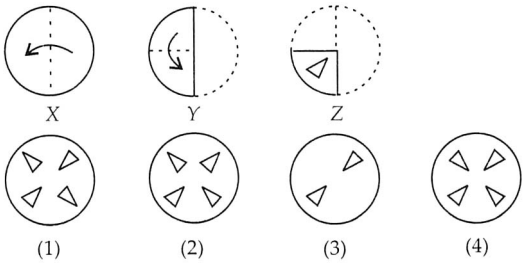
Solution

(C) On folding the transparent sheet along dotted line, all the transparent sheet along dotted line, all the points, will go inside the circles. Hence the answer is (C)

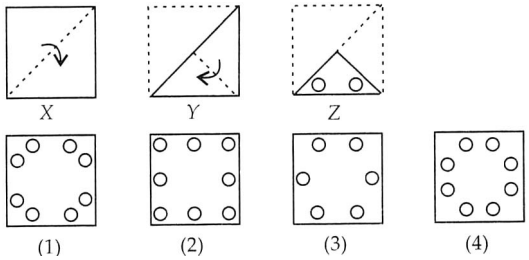
ASSIGNMENT-1
Folding Paper Cutting

1. 

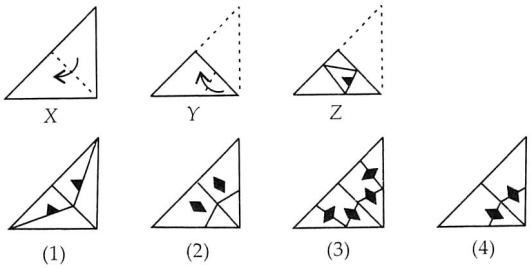
(A) 1 (B) 2 (C) 3 (D) 4

2. 

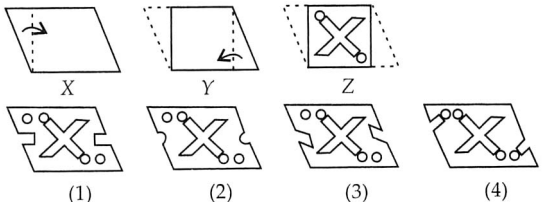
(A) 1 (B) 2 (C) 3 (D) 4

3. 

(A) 1 (B) 2 (C) 3 (D) 4

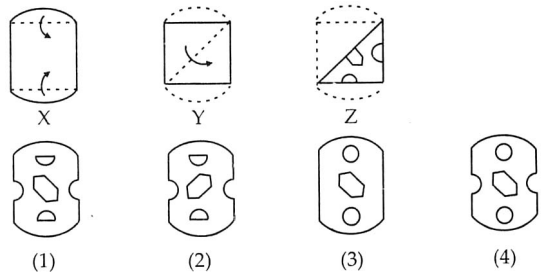
4. 

(A) 1 (B) 2 (C) 3 (D) 4

5. 

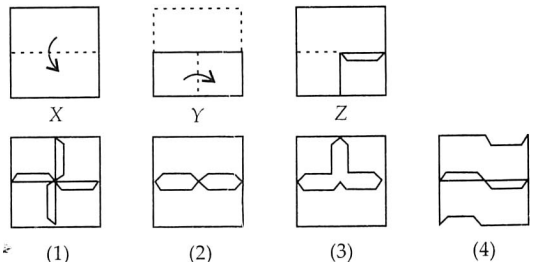
(A) 1 (B) 2 (C) 3 (D) 4

6.



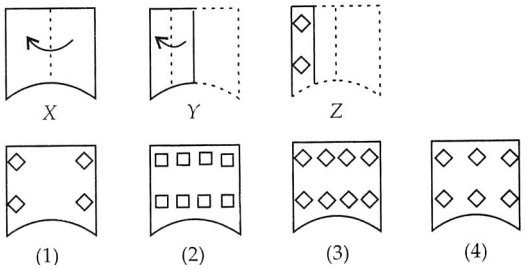
(A) 1 (B) 2 (C) 3 (D) 4

7.



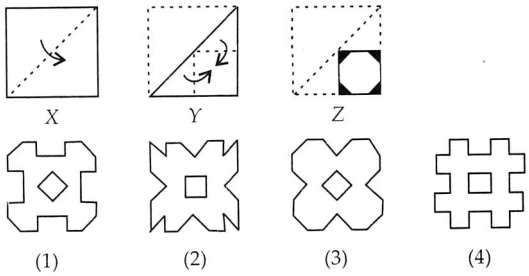
(A) 1 (B) 2 (C) 3 (D) 4

8.



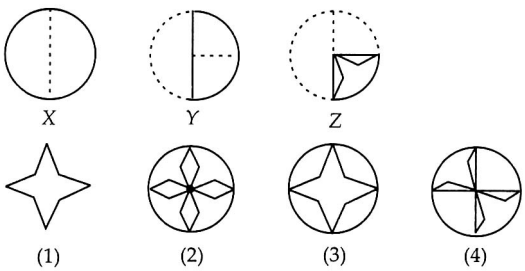
(A) 1 (B) 2 (C) 3 (D) 4

9.

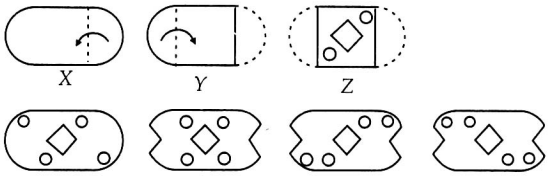


(A) 1 (B) 2 (C) 3 (D) 4

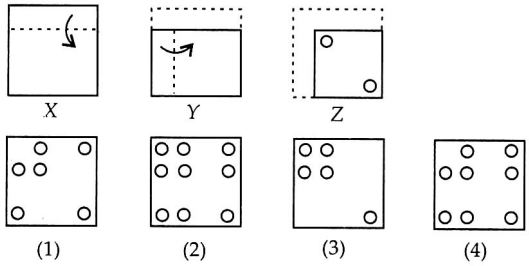
10.



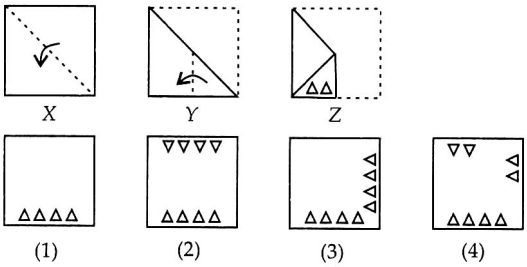
(A) 1 (B) 2 (C) 3 (D) 4

11. 

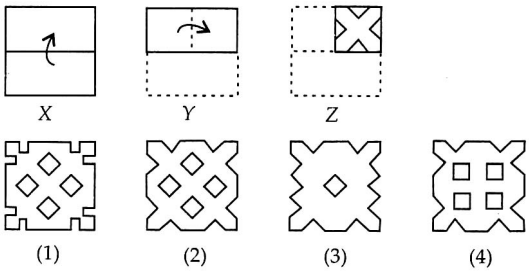
(A) 1 (B) 2 (C) 3 (D) 4

12. 

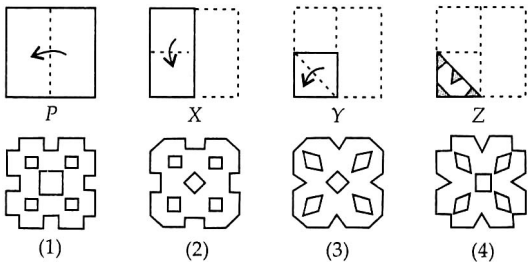
(A) 1 (B) 2 (C) 3 (D) 4

13. 

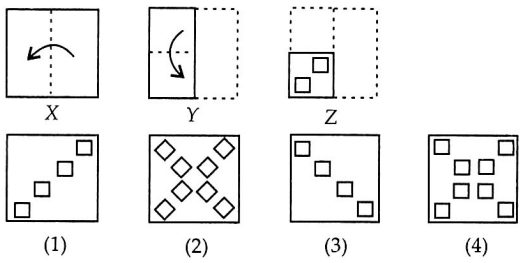
(A) 1 (B) 2 (C) 3 (D) 4

14. 

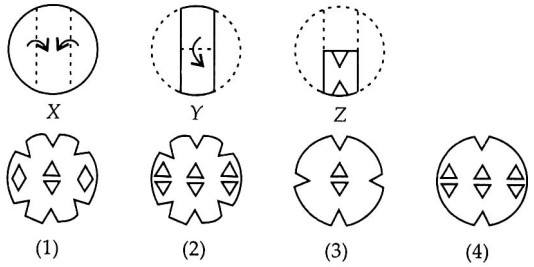
(A) 1 (B) 2 (C) 3 (D) 4

15. 

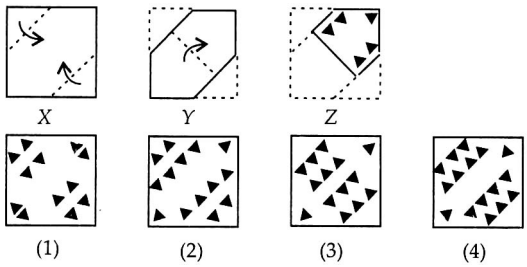
(A) 1 (B) 2 (C) 3 (D) 4

16. 

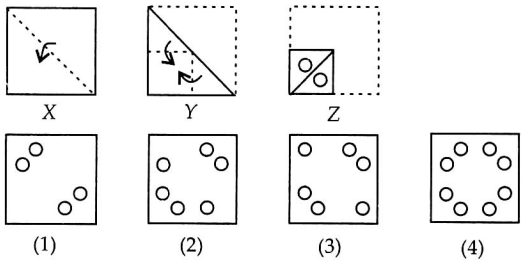
(A) 1 (B) 2 (C) 3 (D) 4

17. 

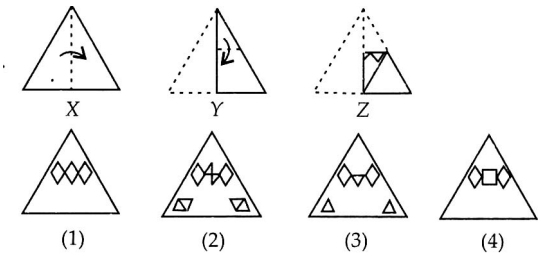
(A) 1 (B) 2 (C) 3 (D) 4

18. 

(A) 1 (B) 2 (C) 3 (D) 4

19. 

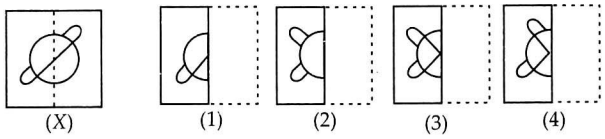
(A) 1 (B) 2 (C) 3 (D) 4

20. 

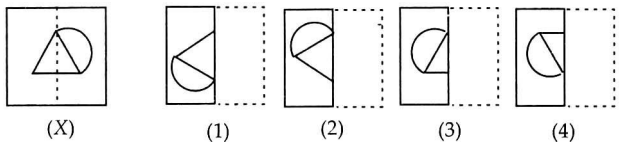
(A) 1 (B) 2 (C) 3 (D) 4

ASSIGNMENT-2
Transparent Paper Folding

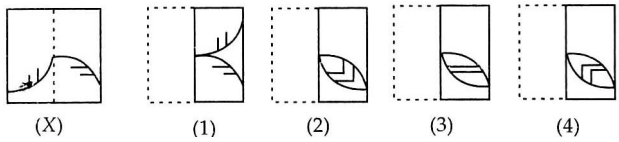
In each of the following problems, a square transparent sheet (X) with a pattern is given. Figure out from amongst the four alternatives as to how the pattern would appear when the transparent sheet is folded at the dotted line.

21. 

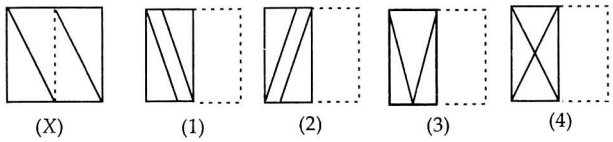
(A) 1 (B) 2 (C) 3 (D) 4

22. 

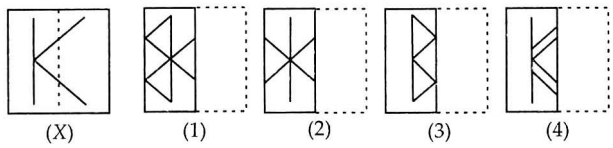
(A) 1 (B) 2 (C) 3 (D) 4

23. 

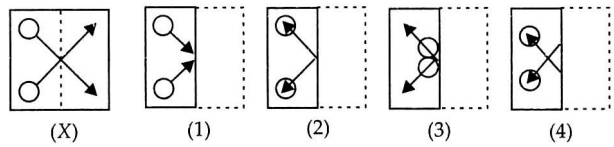
(A) 1 (B) 2 (C) 3 (D) 4

24. 

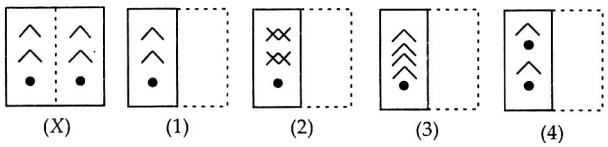
(A) 1 (B) 2 (C) 3 (D) 4

25. 

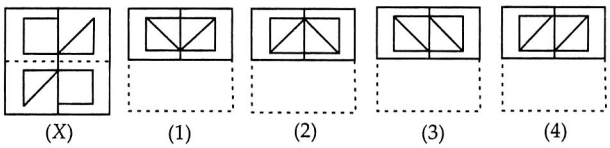
(A) 1 (B) 2 (C) 3 (D) 4

26. 

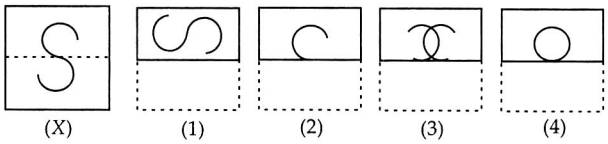
(A) 1 (B) 2 (C) 3 (D) 4

27. 

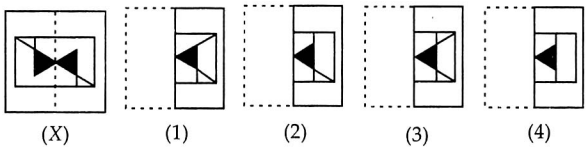
(A) 1 (B) 2 (C) 3 (D) 4

28. 

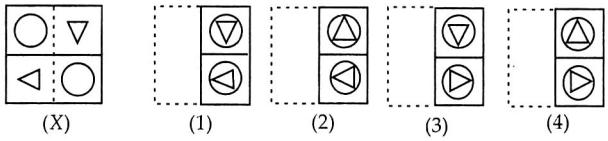
(A) 1 (B) 2 (C) 3 (D) 4

29. 

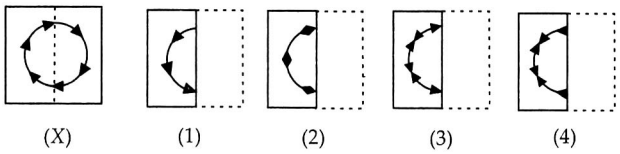
(A) 1 (B) 2 (C) 3 (D) 4

30. 

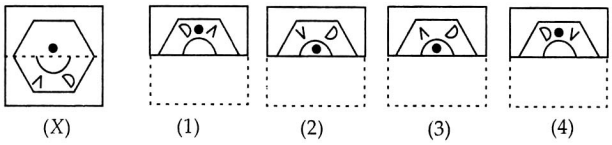
(A) 1 (B) 2 (C) 3 (D) 4

31. 

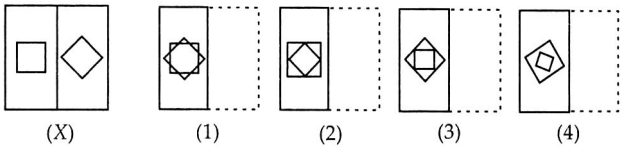
(A) 1 (B) 2 (C) 3 (D) 4

32. 

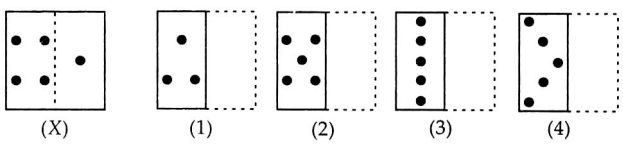
(A) 1 (B) 2 (C) 3 (D) 4

33. 

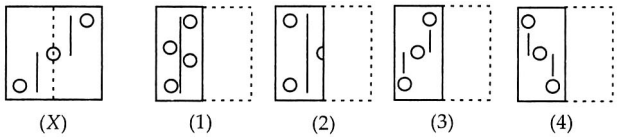
(A) 1 (B) 2 (C) 3 (D) 4

34. 

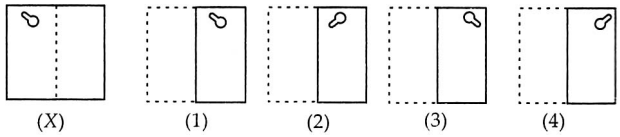
(A) 1 (B) 2 (C) 3 (D) 4

35. 

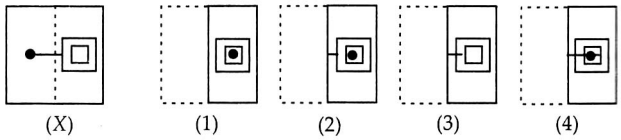
(A) 1 (B) 2 (C) 3 (D) 4

36. 

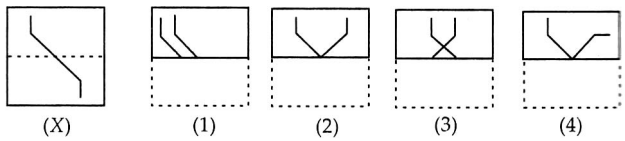
(A) 1 (B) 2 (C) 3 (D) 4

37. 

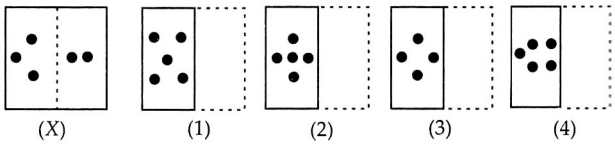
(A) 1 (B) 2 (C) 3 (D) 4

38. 

(A) 1 (B) 2 (C) 3 (D) 4

39. 

(A) 1 (B) 2 (C) 3 (D) 4

40. 

(A) 1 (B) 2 (C) 3 (D) 4

CHAPTER

34

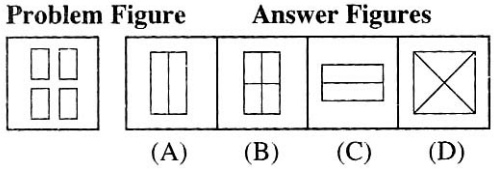
Formation of Figure Analysis

Formation of Figure Analysis

In such questions there is a box in problem figures. In this box there are some designs. In answer figures there are boxes. In these boxes there is a complete design in each box. The candidate has to find out from the answer figures which figure can be formed with the designs given in the box in problem figure. The following few example will clear the idea.

Examples

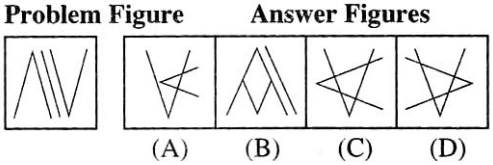
1.



Solution

(B) By combining all the four rectangles given in the box in problem figure we get a figure as shown in box (B) in the answer figures. Hence the answer is (B)

2.



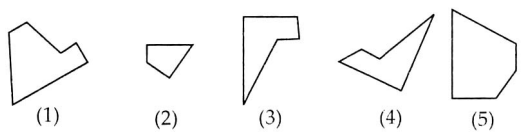
Solution

(B) In the box of problem figure there are three designs. These all the three designs are present only in answer box (B) of the answer figures. Hence the answer is (B)

ASSIGNMENT-1

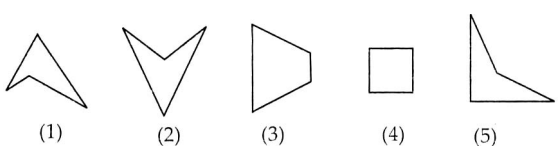
Direction : Select the alternative which represents three out of the five alternative figures which when fitted into each other would form a complete square

1.

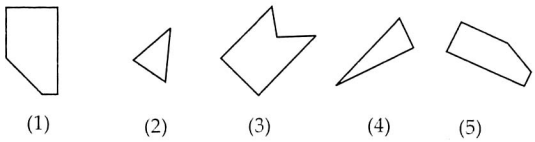


(A) 145 (B) 245 (C) 123 (D) 234

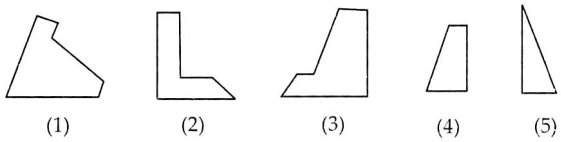
2.



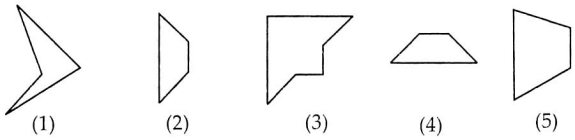
(A) 124 (B) 345 (C) 123 (D) 135

3. 

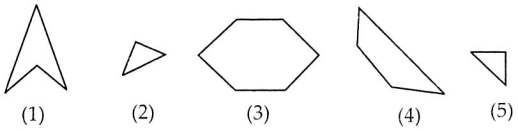
(A) 124 (B) 125 (C) 234 (D) 245

4. 

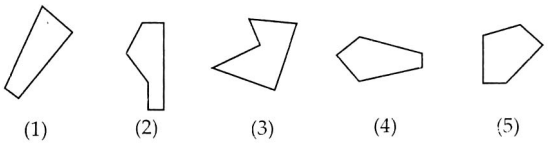
(A) 123 (B) 124 (C) 135 (D) 145

5. 

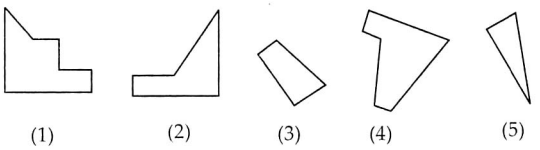
(A) 134 (B) 345 (C) 234 (D) 135

6. 

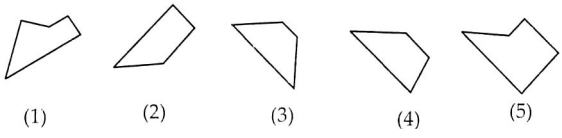
(A) 124 (B) 234 (C) 345 (D) 235

7. 

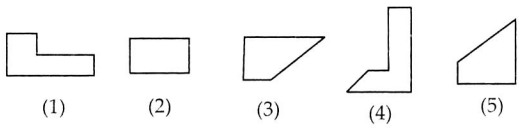
(A) 135 (B) 123 (C) 145 (D) 234

8. 

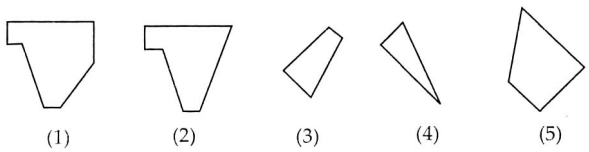
(A) 123 (B) 234 (C) 345 (D) 245

9. 

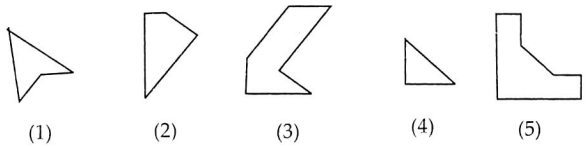
(A) 123 (B) 234 (C) 134 (D) 235

10. 

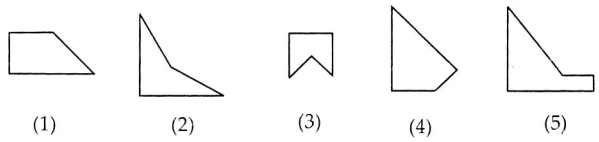
(A) 123 (B) 134 (C) 135 (D) 345

11. 

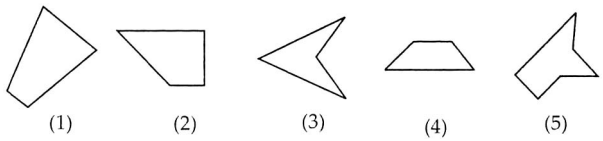
(A) 145 (B) 234 (C) 134 (D) 235

12. 

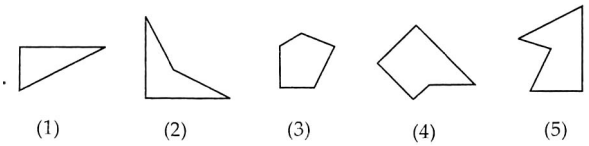
(A) 145 (B) 135 (C) 235 (D) 234

13. 

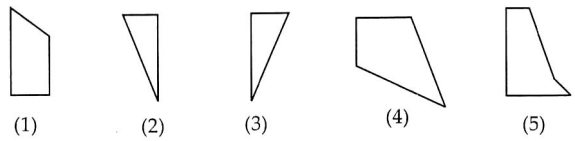
(A) 134 (B) 124 (C) 234 (D) 345

14. 

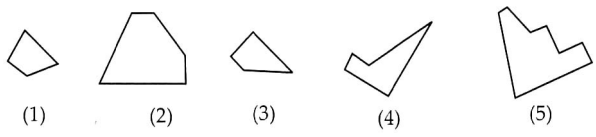
(A) 123 (B) 235 (C) 245 (D) 145

15. 

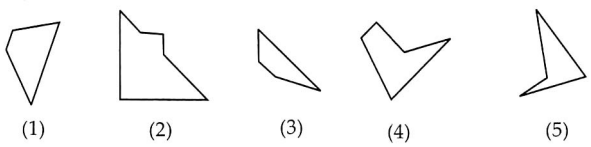
(A) 145 (B) 234 (C) 245 (D) 135

16. 

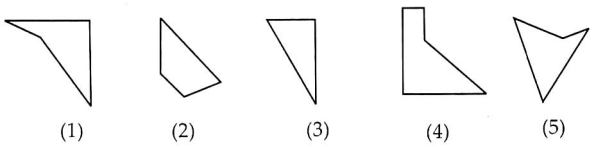
(A) 123 (B) 125 (C) 234 (D) 245

17. 

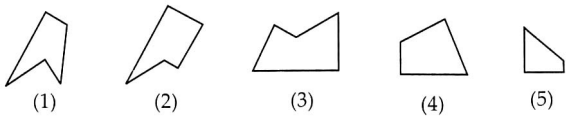
(A) 124 (B) 234 (C) 345 (D) 235

18. 

(A) 123 (B) 124 (C) 125 (D) 235

19. 

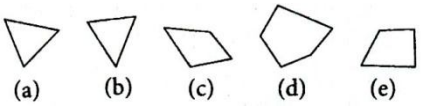
(A) 125 (B) 123 (C) 235 (D) 234

20. 

(A) 123 (B) 134 (C) 135 (D) 145

ASSIGNMENT-2

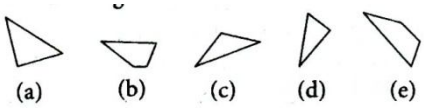
Directions (21 to 30): In each of the following questions, five diagrams marked A to E are given. Three of these when put together form an equilateral triangle and have been given as one of the four alternatives under the question. Find the correct alternative in each case and mark your answer.

21. 

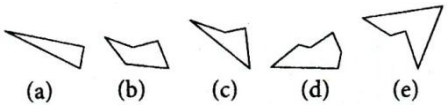
(A) BCD (B) ABC (C) CDE (D) BCE

22. 

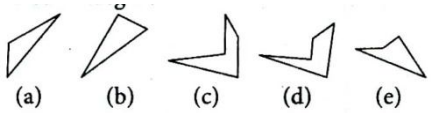
(A) ABE (B) BCE (C) ADE (D) BDE

23. 

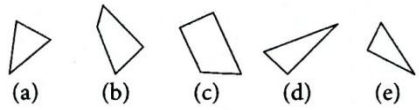
(A) ABC (B) BCD (C) CDE (D) BDE

24. 

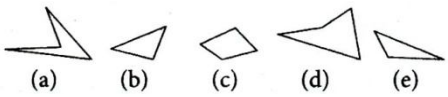
(A) ACB (B) ABD (C) BDE (D) CDE

25. 

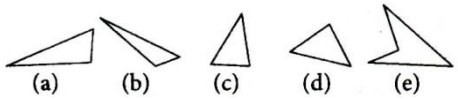
(A) ABC (B) ACE (C) BCD (D) BDE

26. 

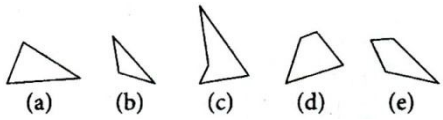
(A) BCD (B) ABD (C) CDE (D) ABE

27. 

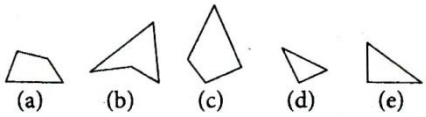
(A) ABD (B) BCD (C) BDE (D) CDE

28. 

(A) ABC (B) ACE (C) BDE (D) CDE

29. 

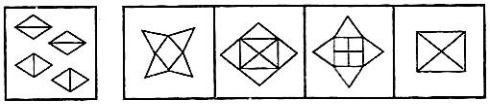
(A) BCD (B) ACD (C) CDE (D) BDE

30. 

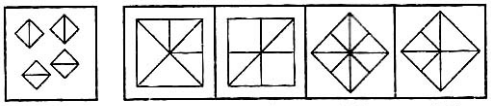
(A) ABC (B) BCD (C) ABD (D) ABE

Direction : In each of the following questions, find out which of the answer figures can be formed from the pieces given in problem figure

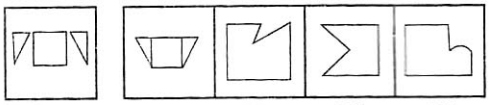
31. **Problem figure** **Answer Figure**



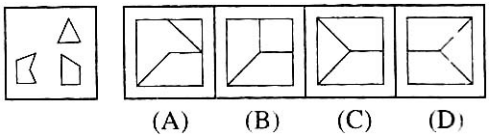
32. **Problem figure** **Answer Figure**



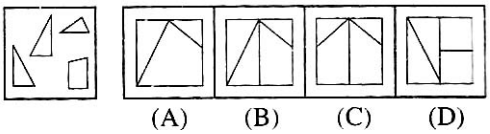
33. **Problem figure** **Answer Figure**



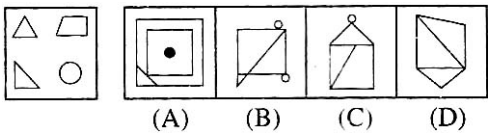
34. **Problem figure** **Answer Figure**



35. **Problem figure** **Answer Figure**

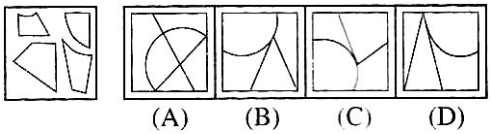


36. **Problem figure** **Answer Figure**



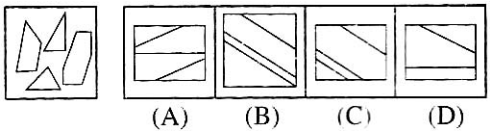
(A) (B) (C) (D)

37. **Problem figure** **Answer Figure**



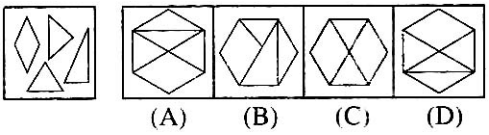
(A) (B) (C) (D)

38. **Problem figure** **Answer Figure**



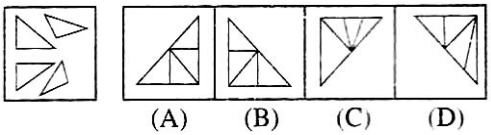
(A) (B) (C) (D)

39. **Problem figure** **Answer Figure**



(A) (B) (C) (D)

40. **Problem figure** **Answer Figure**



(A) (B) (C) (D)

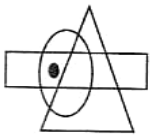
CHAPTER

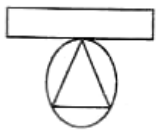
35 Dot Situations

Dot Situation

Dot situation is for the assessment and testing of students' shrewd observation power. A problem figure is given in which has one or more dots are placed in the space enclosed by two or more geometrical figures such as square, rectangle, circle triangle, pentagon, hexagon, octagon etc. One has to identify the region(s) where the dot is/are situated in the problem figure. Then search for an answer figure in which dots are placed in a similar enclosed area.

Example:- Problem figures

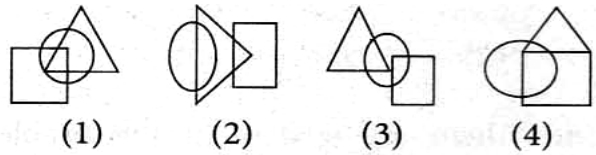


(A)  (B)  (C)  (D) 

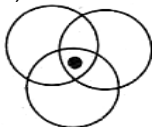
ASSIGNMENT-I

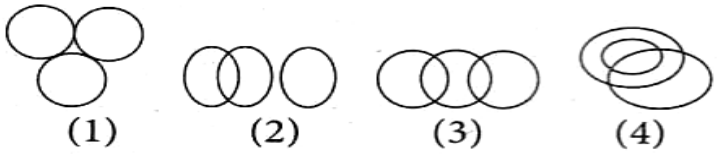
Direction : From amongst the figures marked (A), (B), (C) and (D) select the figure which satisfies the same conditions of placement of the dots as in figure.

1. 

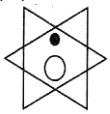


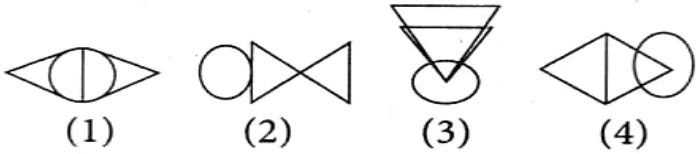
(A) 1 (B) 2 (C) 3 (D) 4

2. 



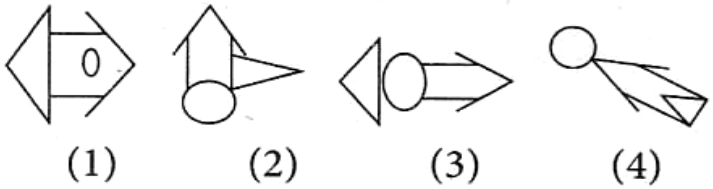
(A) 1 (B) 2 (C) 3 (D) 4

3. 

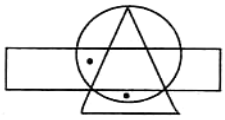


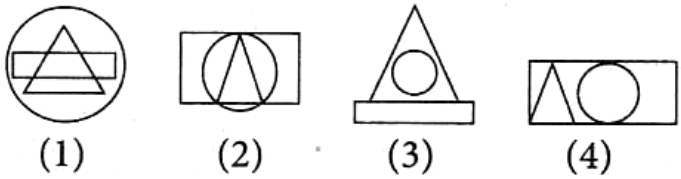
(A) 1 (B) 2 (C) 3 (D) 4

4. 

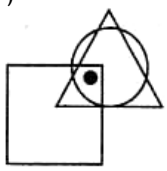


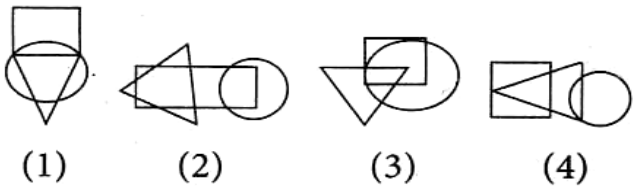
(A) 1 (B) 2 (C) 3 (D) 4

5. 

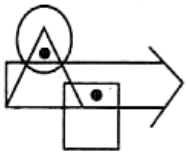


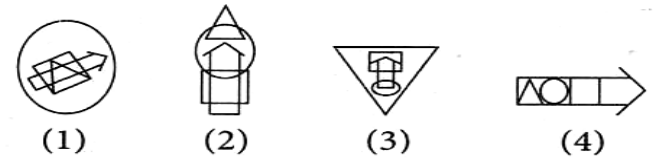
(A) 1 (B) 2 (C) 3 (D) 4

6. 

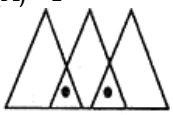


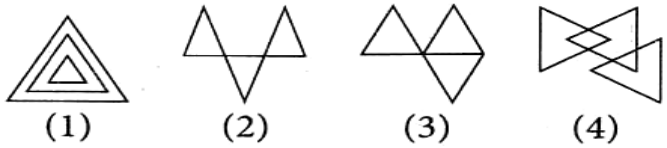
(A) 1 (B) 2 (C) 3 (D) 4

7. 

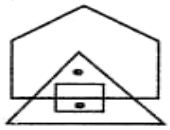


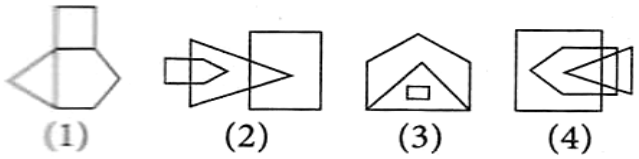
(A) 1 (B) 2 (C) 3 (D) 4

8. 

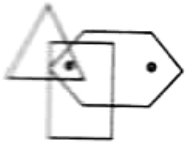


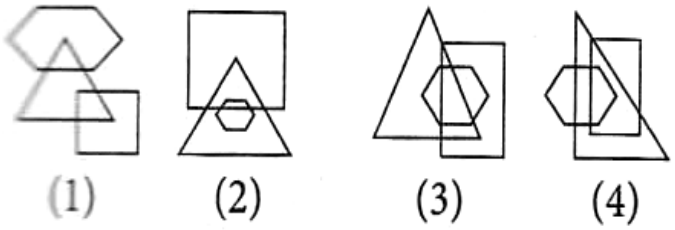
(A) 1 (B) 2 (C) 3 (D) 4

9. 

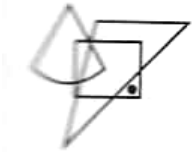


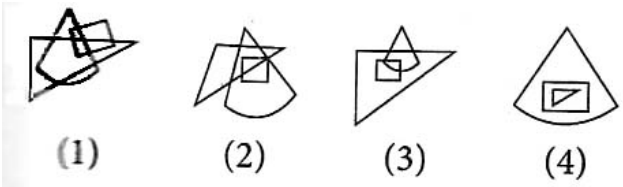
(A) 1 (B) 2 (C) 3 (D) 4

10. 

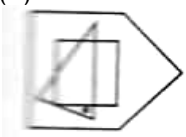


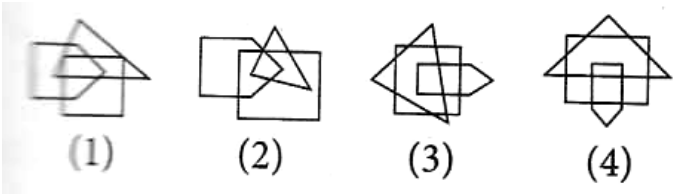
(A) 1 (B) 2 (C) 3 (D) 4

11. 

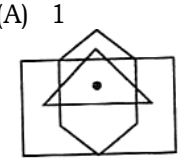


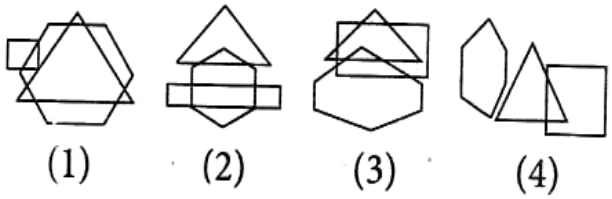
(A) 1 (B) 2 (C) 3 (D) 4

12. 

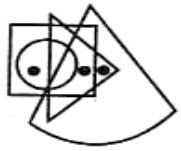


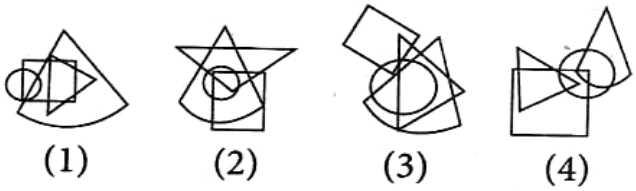
(A) 1 (B) 2 (C) 3 (D) 4

13. 



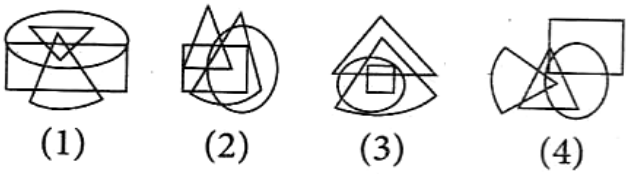
(A) 1 (B) 2 (C) 3 (D) 4

14. 



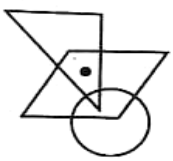
(A) 1 (B) 2 (C) 3 (D) 4

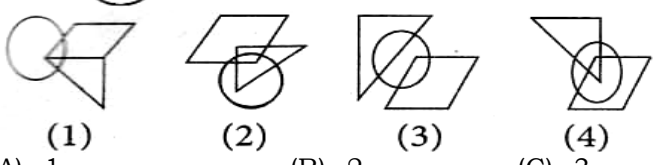
15. 



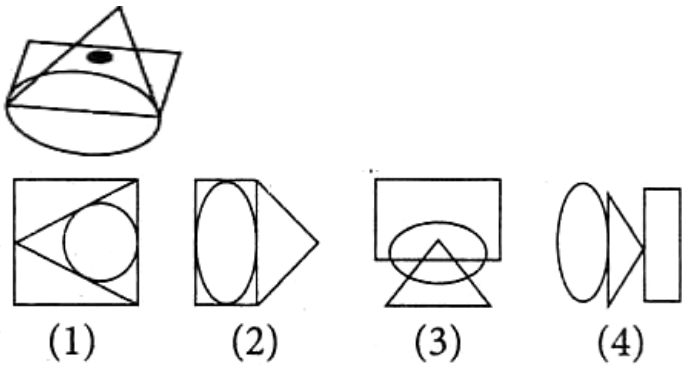
(A) 1 (B) 2 (C) 3 (D) 4

Directions for questions 16 to 20: in each of the following questions, there is a problem figure, with one or more dots placed in it. This diagram is following by four answer figures, marked (1), (2), (3) and (4) only one of which is such as to make possible the placement of the dot(s) satisfying the same conditions as in the problem figure. Find such answer figure.

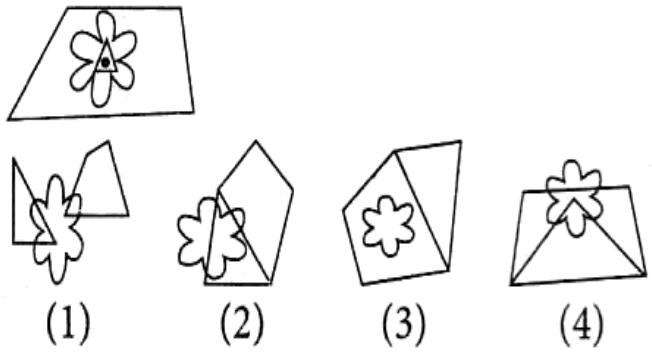
16. 



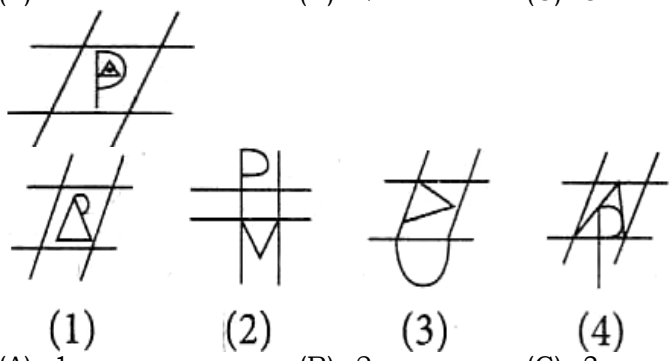
(A) 1 (B) 2 (C) 3 (D) 4

17. 

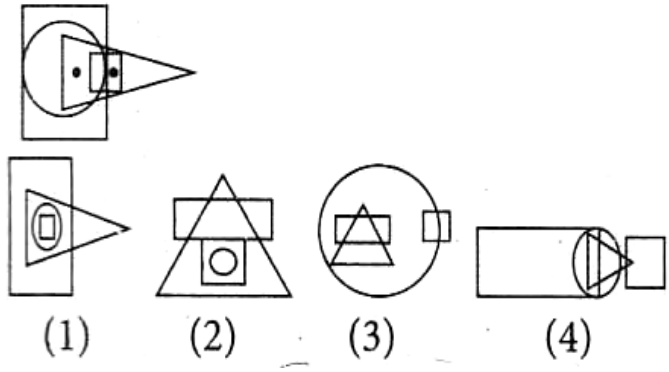
(A) 1 (B) 2 (C) 3 (D) 4

18. 

(A) 1 (B) 2 (C) 3 (D) 4

19. 

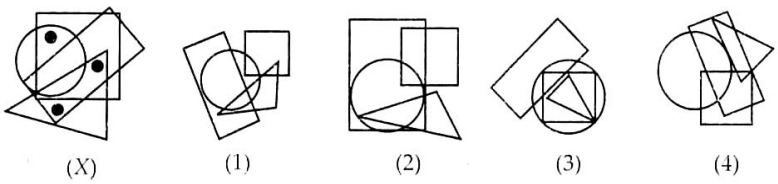
(A) 1 (B) 2 (C) 3 (D) 4

20. 

(A) 1 (B) 2 (C) 3 (D) 4

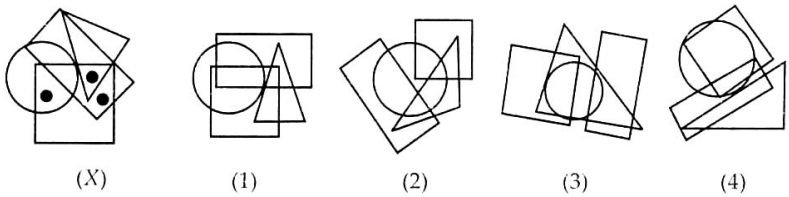
ASSIGNMENT-2

Direction : From amongst the figures marked (A), (B), (C) and (D) select the figure which satisfies the same conditions of placement of the dots as in figure (X)

21. 

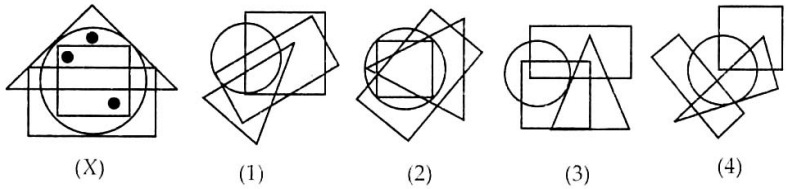
(X) (1) (2) (3) (4)

(A) 1 (B) 2 (C) 3 (D) 4

22. 

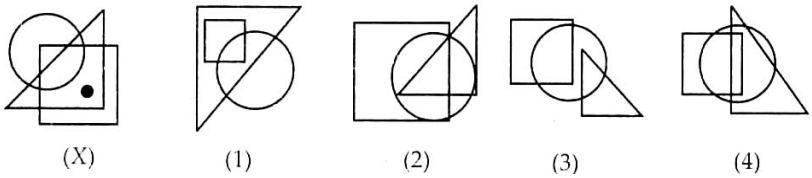
(X) (1) (2) (3) (4)

(A) 1 (B) 2 (C) 3 (D) 4

23. 

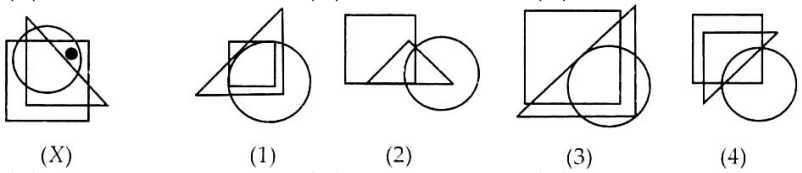
(X) (1) (2) (3) (4)

(A) 1 (B) 2 (C) 3 (D) 4

24. 

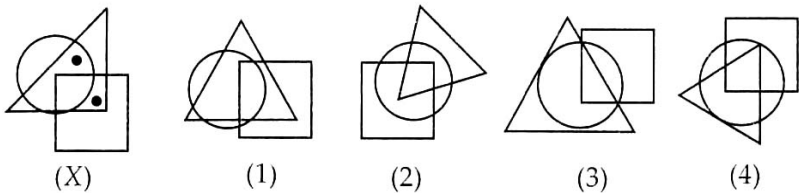
(X) (1) (2) (3) (4)

(A) 1 (B) 2 (C) 3 (D) 4

25. 

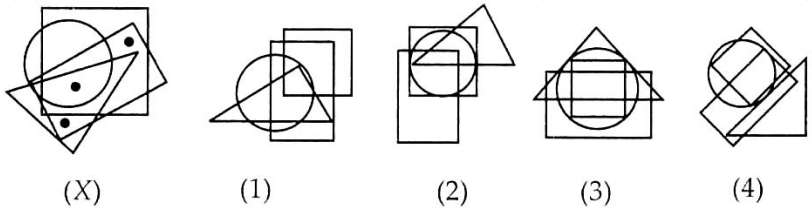
(X) (1) (2) (3) (4)

(A) 1 (B) 2 (C) 3 (D) 4

26. 

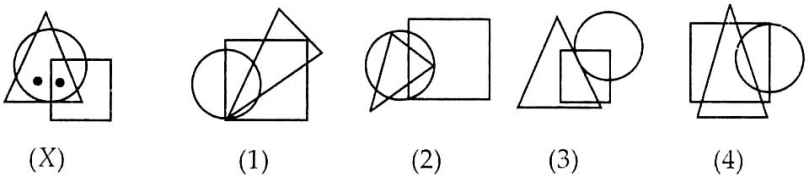
(X) (1) (2) (3) (4)

(A) 1 (B) 2 (C) 3 (D) 4

27. 

(X) (1) (2) (3) (4)

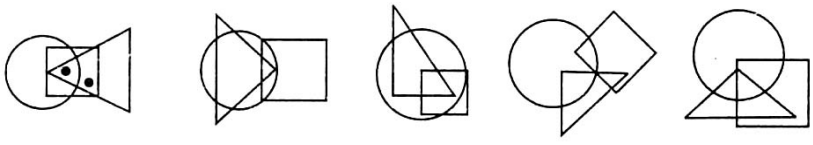
(A) 1 (B) 2 (C) 3 (D) 4

28. 

(X) (1) (2) (3) (4)

(A) 1 (B) 2 (C) 3 (D) 4

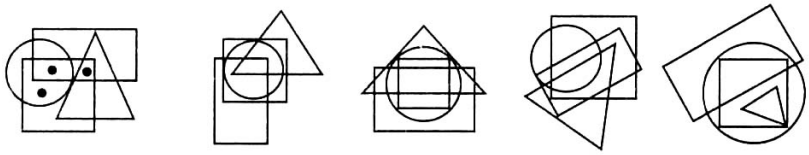
29.



(X) (1) (2) (3) (4)

(A) 1 (B) 2 (C) 3 (D) 4

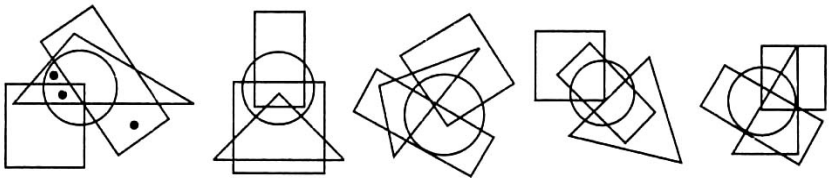
30.



(X) (1) (2) (3) (4)

(A) 1 (B) 2 (C) 3 (D) 4

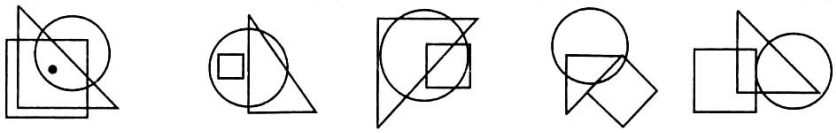
31.



(X) (1) (2) (3) (4)

(A) 1 (B) 2 (C) 3 (D) 4

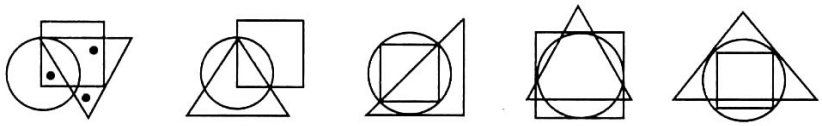
32.



(X) (1) (2) (3) (4)

(A) 1 (B) 2 (C) 3 (D) 4

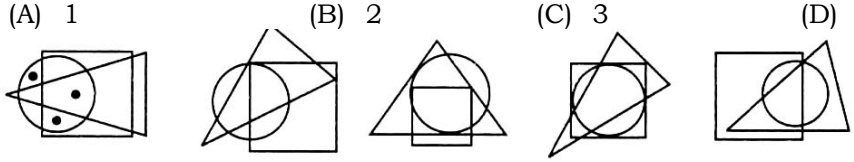
33.



(X) (1) (2) (3) (4)

(A) 1 (B) 2 (C) 3 (D) 4

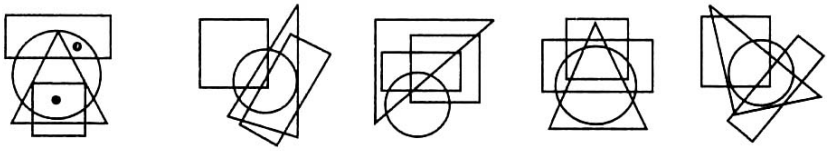
34.



(X) (1) (2) (3) (4)

(A) 1 (B) 2 (C) 3 (D) 4

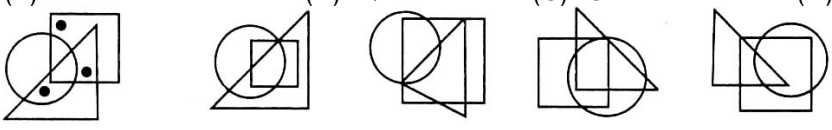
35.



(X) (1) (2) (3) (4)

(A) 1 (B) 2 (C) 3 (D) 4

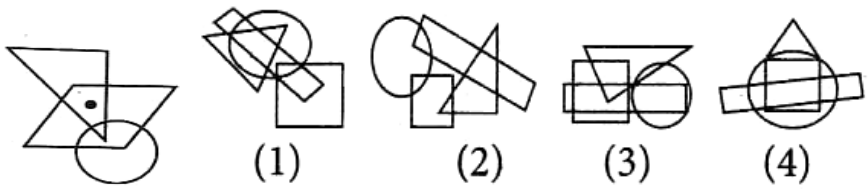
36.



(X) (1) (2) (3) (4)

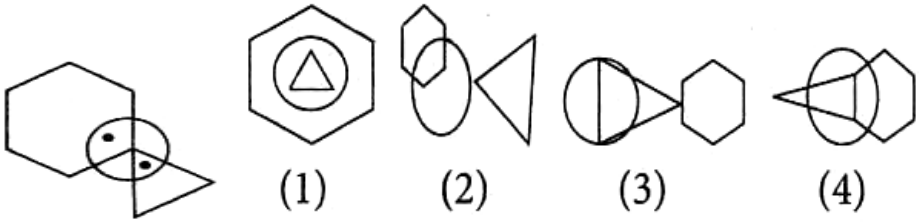
(A) 1 (B) 2 (C) 3 (D) 4

37.



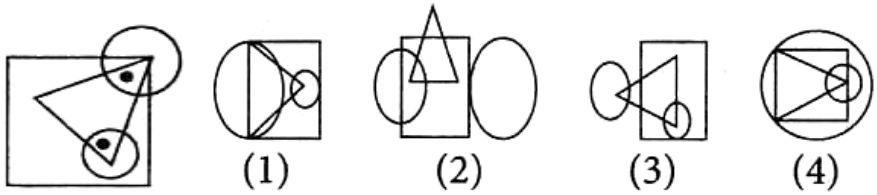
(A) 1 (B) 2 (C) 3 (D) 4

38.



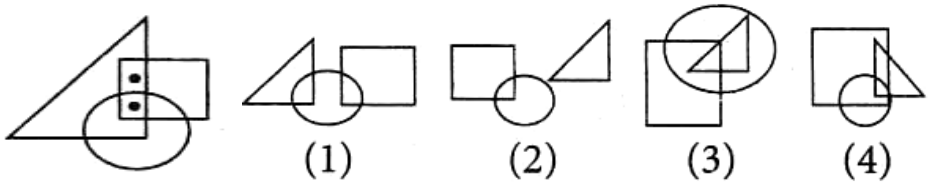
(A) 1 (B) 2 (C) 3 (D) 4

39.



(A) 1 (B) 2 (C) 3 (D) 4

40.



(A) 1 (B) 2 (C) 3 (D) 4

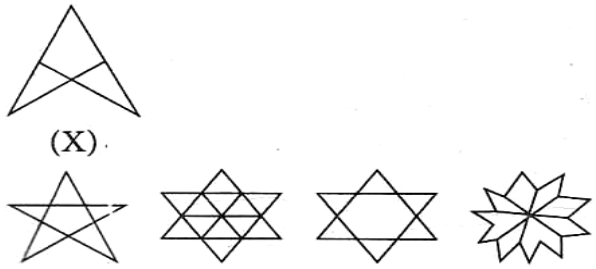
CHAPTER

36 Embedded Figures

Embedded Figures

The questions are of this type, a problem figure is given (X) following by five figure (1), (2), (3) and (4). The answer figure has a hidden figure of the problem figure and one should identify that figure.

Example

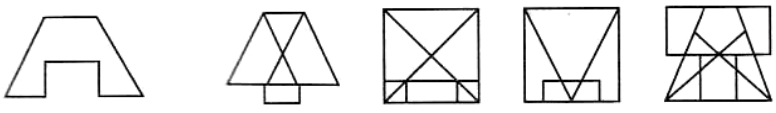


Solution (A)

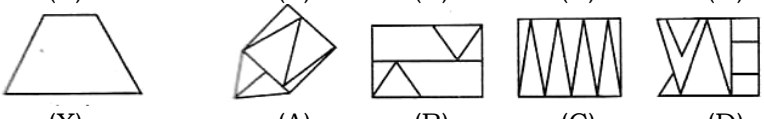
ASSIGNMENT-1

Directions for question 1 to 15: In each question below, you are given a figure (X) followed by five figure (1), (2) (3) and (4) such that (X) is embedded in one of them. Trace out the correct alternative.

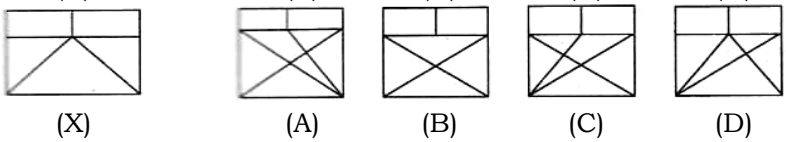
1.



2.



3.



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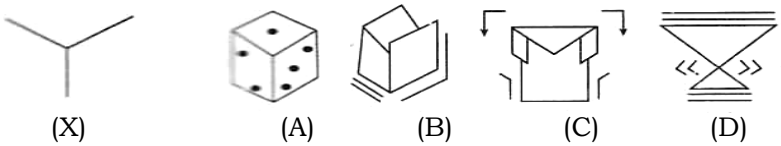
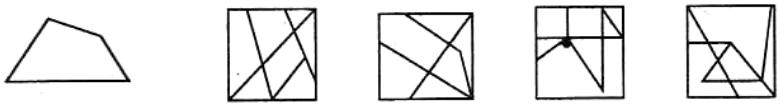
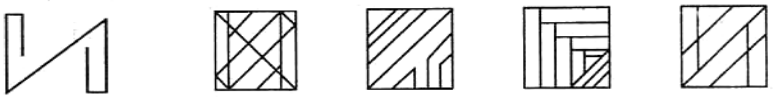


5. 
(X) (A) (B) (C) (D)

6. 
(X) (A) (B) (C) (D)

7. 
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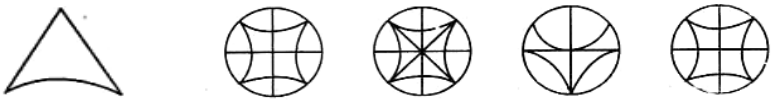
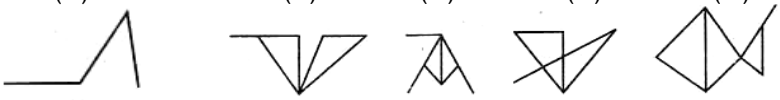
8. 
(X) (A) (B) (C) (D)

9. 
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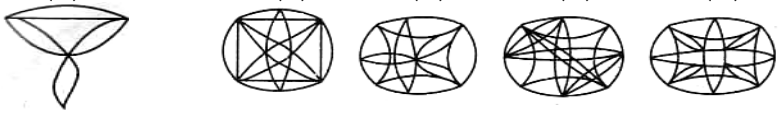
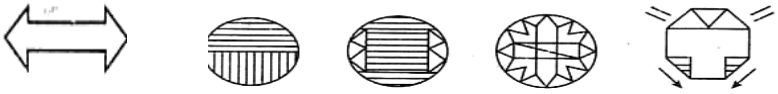
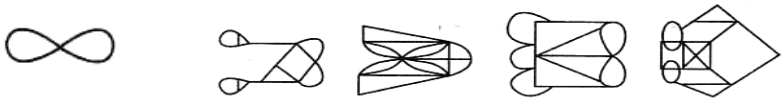
10. 
(X) (A) (B) (C) (D)

11. 
(X) (A) (B) (C) (D)

12. 
(X) (A) (B) (C) (D)

13. 
(X) (A) (B) (C) (D)

14. 
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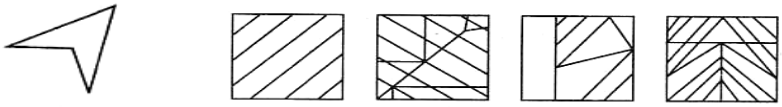
15. 
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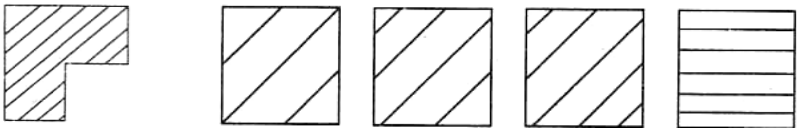
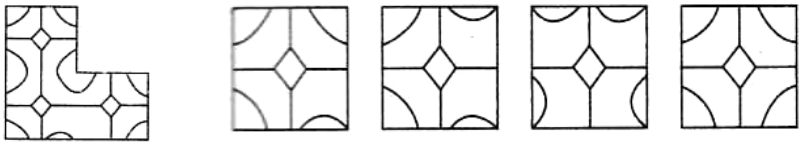
16. 
(X) (A) (B) (C) (D)

17. 

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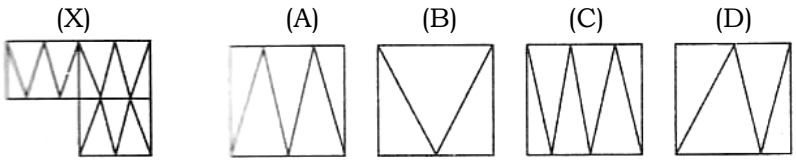

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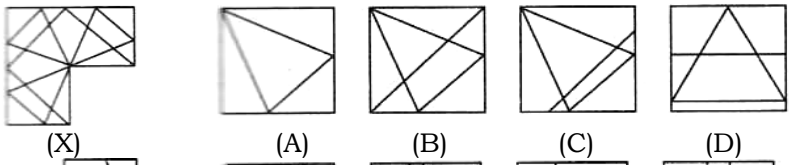

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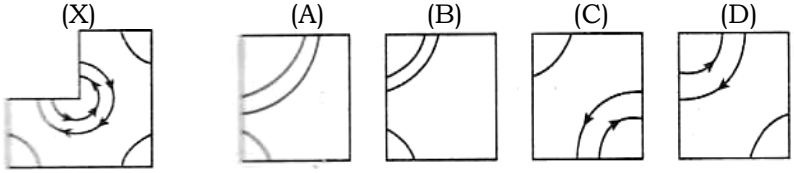
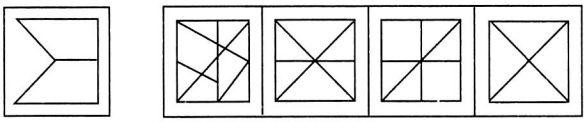


ASSIGNMENT-2

21.



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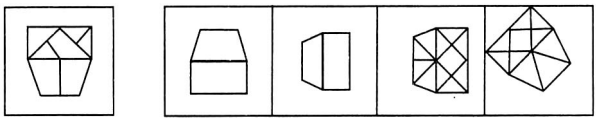

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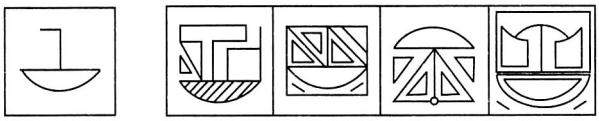

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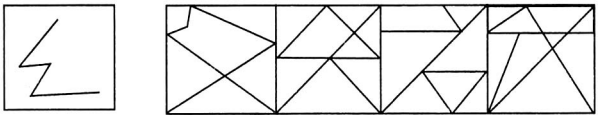

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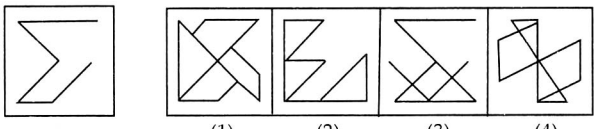

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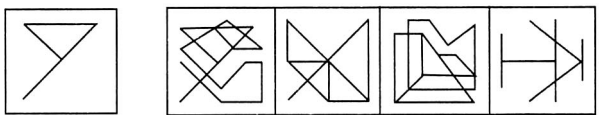

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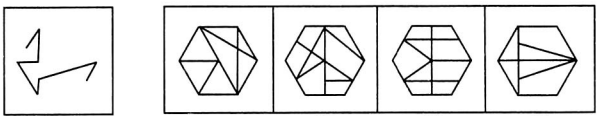
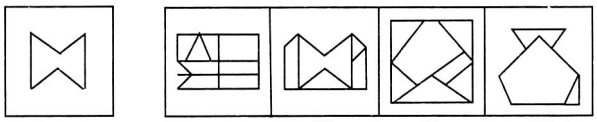


(X) (A) (B) (C) (D)

28. 

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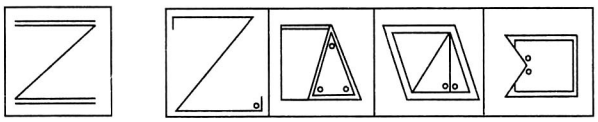
29. 

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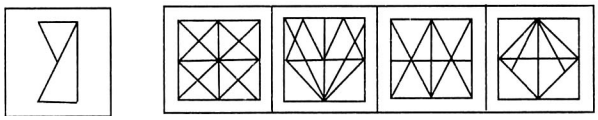
30. 

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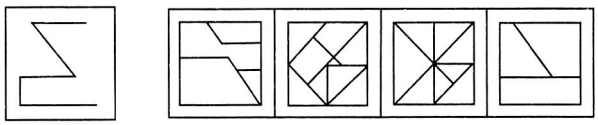
31. 

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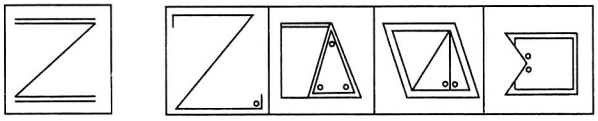
32. 

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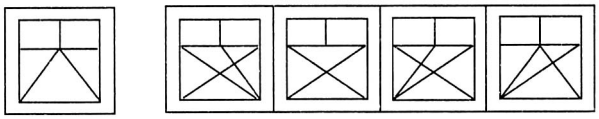
33. 

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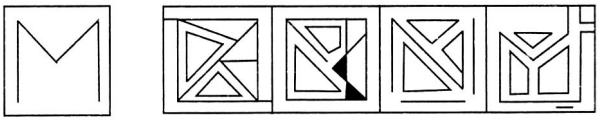
34. 

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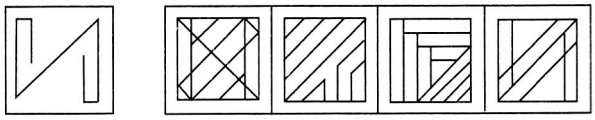
35. 

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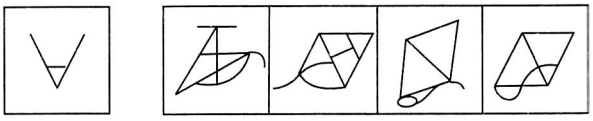
36. 

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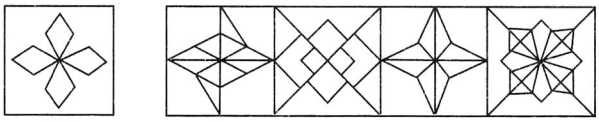
37. 

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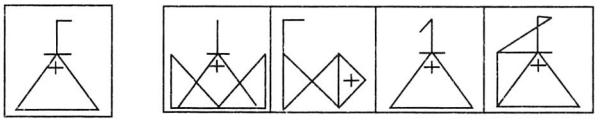
38. 

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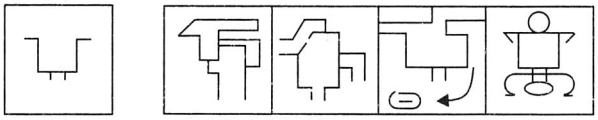
39. 

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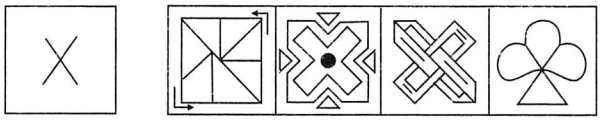
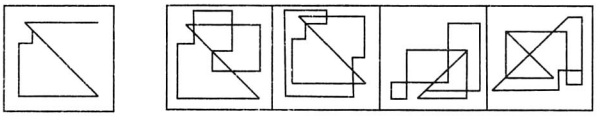
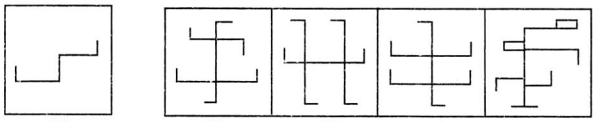
40. 

(X) (A) (B) (C) (D)

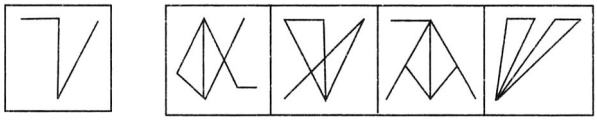
PREVIOUS YEAR NTSE QUESTIONS

41. 

(X) (A) (B) (C) (D)

42. 

(X) (A) (B) (C) (D)

43. 

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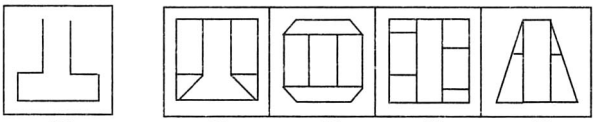
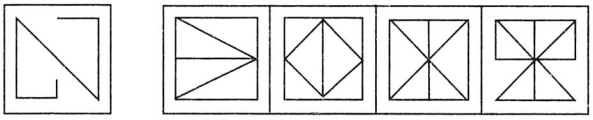
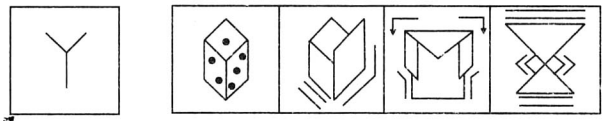
44. 

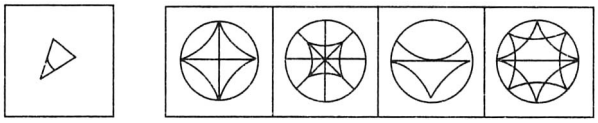
(X) (A) (B) (C) (D)

45. 

(X) (A) (B) (C) (D)

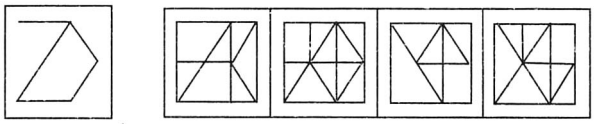
46. 

(X) (A) (B) (C) (D)

47. 

48.

(X) (A) (B) (C) (D)



(X) (A) (B) (C) (D)

CHAPTER

37 Water Image

Water Image

The reflection of an object as seen in water is known as water image. The upper part of the object seen downward and vice-versa . There are some objects whose water images are identical to the objects. Such objects are given below

B, C, D, E, H, I, K, O and X

Water Image Numbers

(Numbers)	(Water-image)
0	0
1	⇂
2	ᘔ
3	Ɛ
4	ㄣ
5	ϛ
6	9
7	ㄥ
8	8
9	6

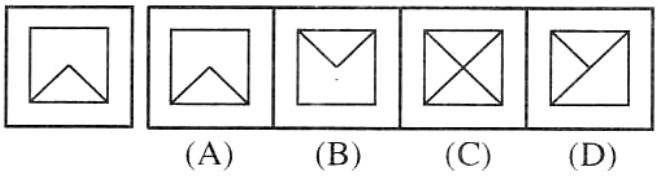
Water Image of Capital Letters

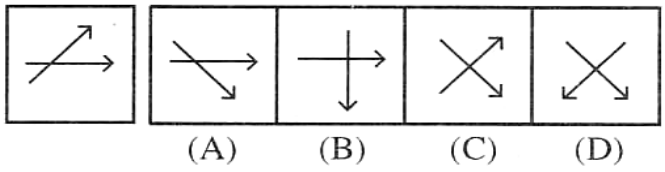
(Letters)	(Water-image)
A	∀
B	B
C	C
D	D
E	E
F	Ⅎ
G	⅁
H	H
I	I
J	ſ
K	K
L	⅂
M	W
N	N
O	O
P	Ԁ
Q	Ό
R	ᴚ
S	S
T	⊥
U	∩
V	Λ
W	M
X	X
Y	⅄
Z	Z

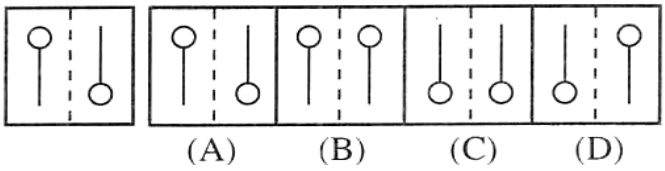
Water Image of Small Letters

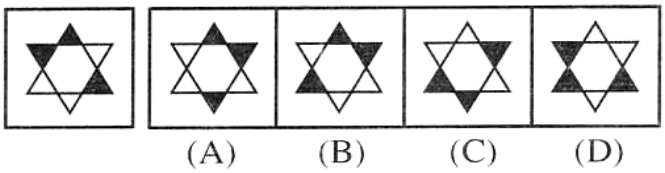
(Letters)	(Water-image)
a	ɐ
b	q
c	ɔ
d	p
e	ǝ
f	ɟ
g	ƃ
h	ɥ
i	ᴉ
j	ɾ
k	ʞ
l	l
m	ɯ
n	u
o	o
p	d
q	b
r	ɹ
s	s
t	ʇ
u	n
v	ʌ
w	ʍ
x	x
y	ʎ
z	z

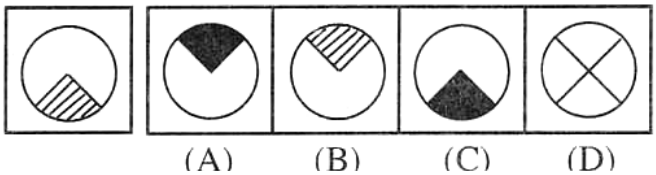
ASSIGNMENT-1

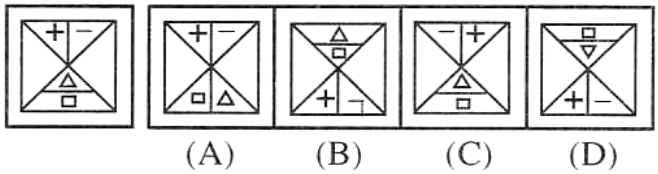
1. 

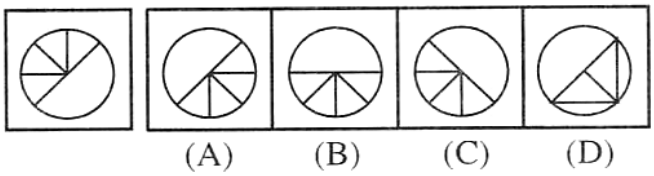
2. 

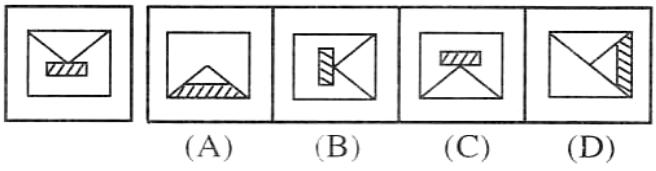
3. 

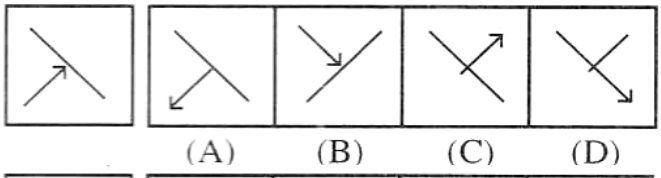
4. 

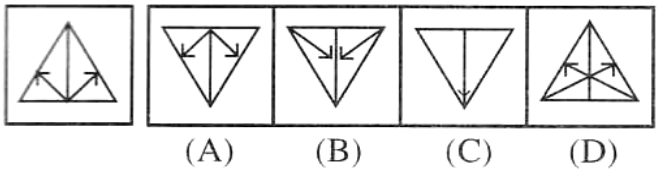
5. 

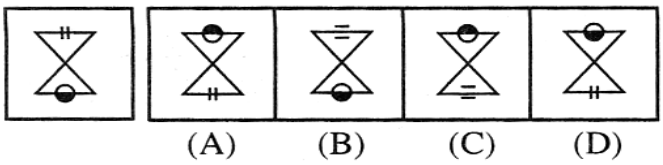
6. 

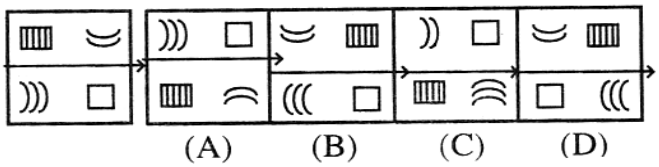
7. 

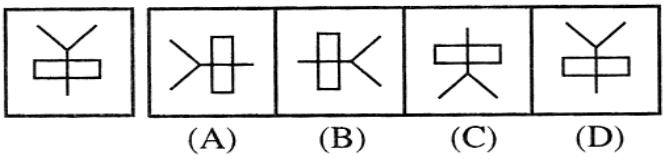
8. 

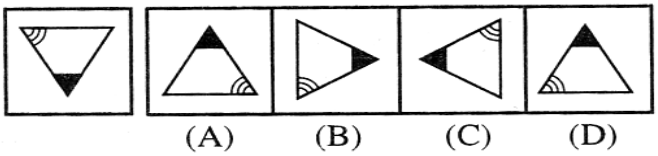
9. 

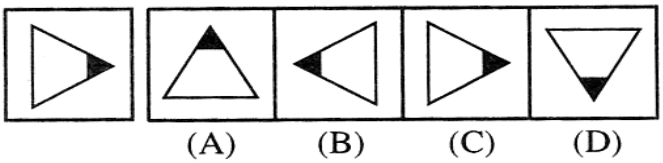
10. 

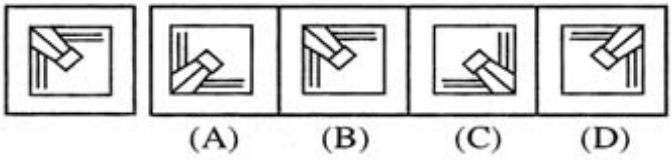
11. 

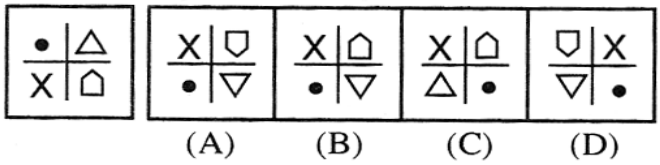
12. 

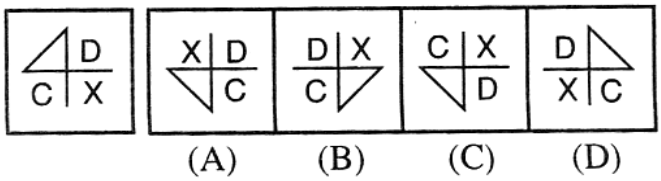
13. 

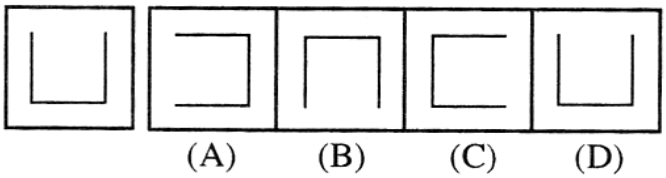
14. 

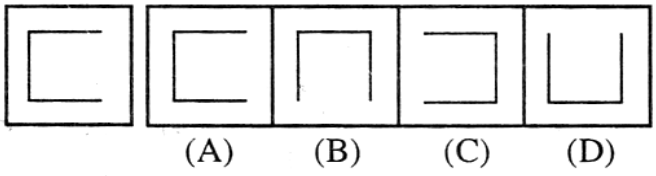
15. 

16. 

17. 

18. 

19. 

20. 

ASSIGNMENT-2

21. KICK
(A) ꓘICꓘ (B) KIↃ K (C) ꓘICꓘ (D) KICK

22. UPKAR
(A) ՈԲKᗄᴚ (B) ՈPKᗄᴚ (C) UԲKᗄᴚ (D) RAKPU

23. KID
(A) ꓘIᗡ (B) KID (C) ꓘI D (D) KDI

24. SUBHAM
(A) ƨՈᗺHᗄW (B) SՈᗺHAW (C) ƨՈBHᗄW (D) MAHBUS

25. CHIDE
(A) ↃHIᗡƎ (B) CHIᗡƎ (C) EDIHC (D) CHIDE

26. HIKE
(A) HIKE (B) EKIH (C) HIꓘƎ (D) HIKƎ

27. CODE
(A) CODE (B) EDOC (C) ↃOᗡ Ǝ (D) Ↄ ODƎ

28. CHICK
(A) Ↄ H I Cꓘ (B) Ↄ H I Cꓘ (C) KCIHC (D) CHICK

29. SANOO
(A) ƨᗄИ OO (B) ƨ AИ OO (C) OONAS (D) SANOO

30. SUBOO
(A) ƨՈBOO (B) OOBUS (C) SUBOO (D) ƨUᗺOO

31. ODD
(A) DDO (B) ODD (C) Oᗡᗡ (D) OᗡO

32. WATER
(A) ʍᗄꓕEᴚ (B) RETAW (C) MᗄTƎᴚ (D) M ATƎ R

33. DK17C
(A) DKIՂC (B) DꓘI ՂↃ (C) C71KD (D) ᗡꓘI7 Ↄ

34. D6Z7F4
(A) D9ZՂꟻ4 (B) ᗡ9Z7ꟻ4 (C) D9ZՂꟻ4 (D) D9ZՂꟻ4

35. ab45CD67
(A) ap45CD9Ղ (B) ɐp45CD9Ղ (C) ɐb45CD9Ղ (D) ɐp45CD9Ղ

36. abc
(A) ɐpc (B) abc (C) cba (D) ɔd a

37. 01234
(A) 01ՇƐ4 (B) 43210 (C) 01324 (D) 01Շ34

38. XYZ
(A) X⅄Z (B) X⅄Z (C) XZY (D) ZYX

39. MNOP
(A) WИOP (B) PONM (C) WИOԀ (D) MNOP

40. CDEF
(A) CDEꟻ (B) CDEF (C) FEDC (D) ↃᗡƎꟻ

CHAPTER

38

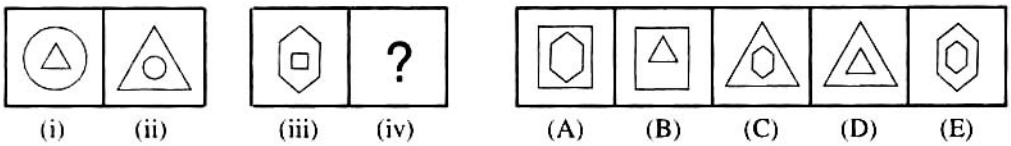
Analogy

Analogy

In this type of questions, there are two sets of figures. The figures on the left are 'Problem Figures' and those on the right are 'Answer figures'. Problem figures are presented in two units. The first unit contains two figures and the second unit contains one figure and a question mark in place of fourth figure. There is some relationship in the two figures of the first unit of the problem figure. The same relationship also exists between the two figures of the second unit of the problem figures. The candidate has to find out which one of the answer figure should be in place of the question mark.

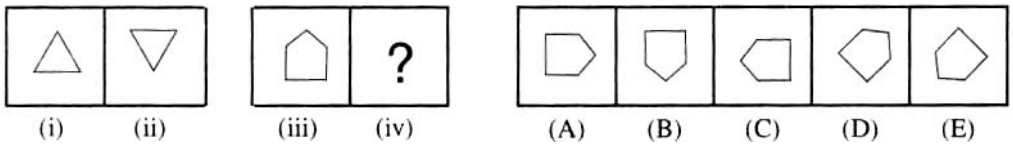
There are many bases of the relation between the problem figure out of which some are following

Example

1. 

Solution

(A) From Pf_1 to Pf_2 the outer design becomes inner after reducing while the inner design becomes outer after enlarging. Therefore the same relation is found between Pf_3 and Answer figure (A)

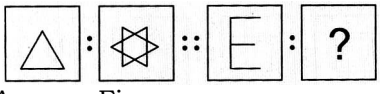
2. 

Solution

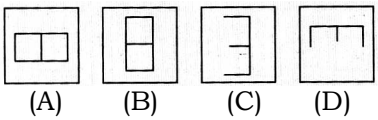
(B) From Pf_1 to Pf_2 the design is inverted. The same relation is found between Pf_3 and answer figure (B).

ASSIGNMENT-1

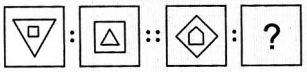
1. Problem Figure



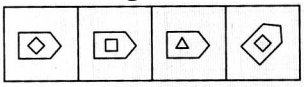
Answer Figure



2. Problem Figure

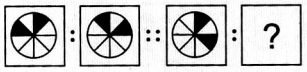


Answer Figure

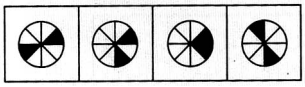


(A) (B) (C) (D)

3. Problem Figure

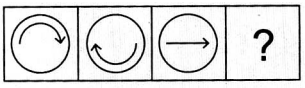


Answer Figure

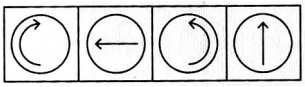


(A) (B) (C) (D)

4. Problem Figure

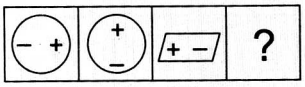


Answer Figure

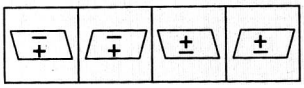


(A) (B) (C) (D)

5. Problem Figure

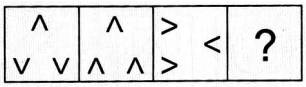


Answer Figure

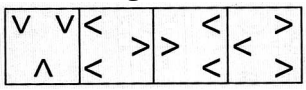


(A) (B) (C) (D)

6. Problem Figure

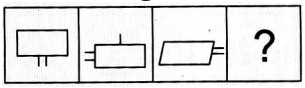


Answer Figure

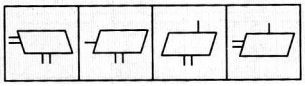


(A) (B) (C) (D)

7. Problem Figure

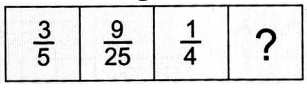


Answer Figure

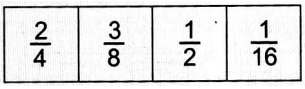


(A) (B) (C) (D)

8. Problem Figure

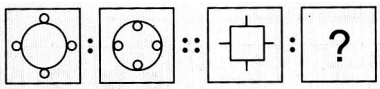


Answer Figure

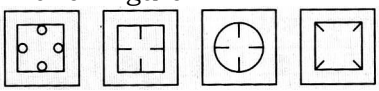


(A) (B) (C) (D)

9. Problem Figure

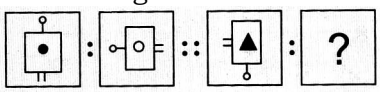


Answer Figure

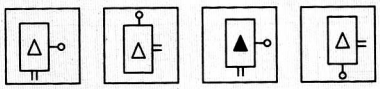


(A) (B) (C) (D)

10. Problem Figure

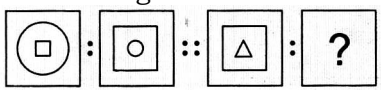


Answer Figure

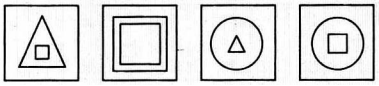


(A) (B) (C) (D)

z11. Problem Figure

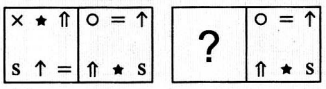


Answer Figure

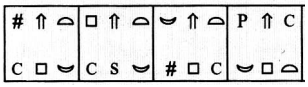


(A) (B) (C) (D)

12. Problem Figure

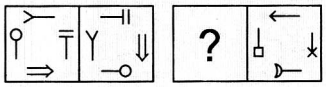


Answer Figure

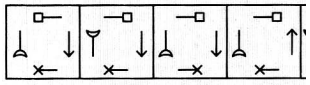


(A) (B) (C) (D)

13. Problem Figure

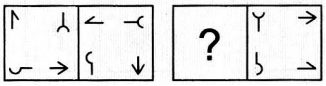


Answer Figure

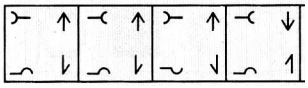


(A) (B) (C) (D)

14. Problem Figure

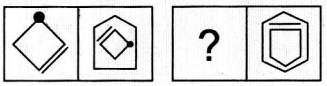


Answer Figure

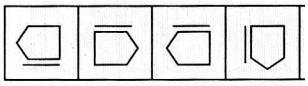


(A) (B) (C) (D)

15. Problem Figure

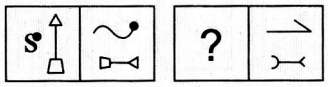


Answer Figure

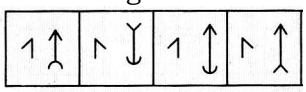


(A) (B) (C) (D)

16. Problem Figure

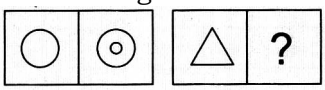


Answer Figure

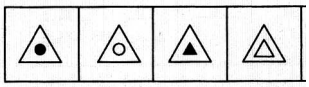


(A) (B) (C) (D)

17. Problem Figure

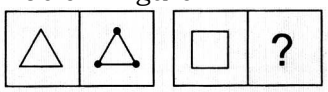


Answer Figure

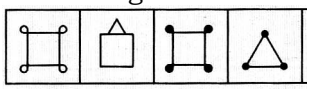


(A) (B) (C) (D)

18. Problem Figure

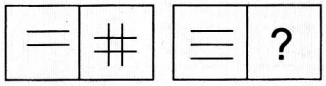


Answer Figure

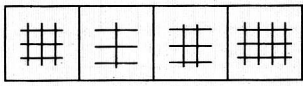


(A) (B) (C) (D)

19. Problem Figure

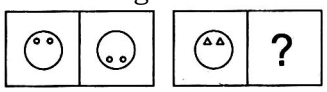


Answer Figure

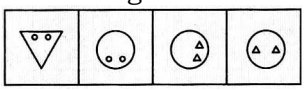


(A) (B) (C) (D)

20. Problem Figure



Answer Figure

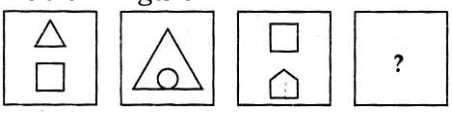


(A) (B) (C) (D)

ASSIGNMENT-2

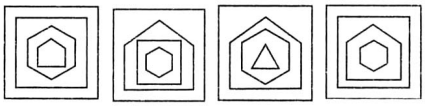
Direction : **(21 to 30)**Each of the following questions consists of two sets of figures. Figure A, B, C and D constitute the Problem Set while figures 1, 2, 3, 4 and 5 constitute the Answer Set. There is a definite relationship between figures A and B. Establish a similar relationship between figures C and D by selecting a suitable figure from the Answer Set that would replace the question mark (?) in figure (D). Select a suitable figure from the Answer Figure that would replace the question mark (?)

21. Problem Figure



(A) (B) (C) (D)

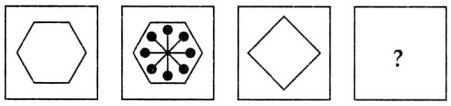
Answer Figure



(1) (2) (3) (4)

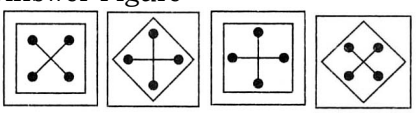
(A) 1 (B) 2 (C) 3 (D) 4

22. Problem Figure



(A) (B) (C) (D)

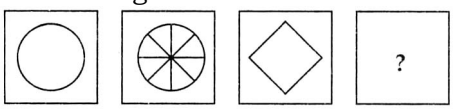
Answer Figure



(1) (2) (3) (4)

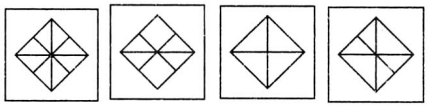
(A) 1 (B) 2 (C) 3 (D) 4

23. Problem Figure



(A) (B) (C) (D)

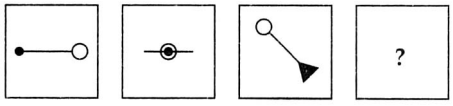
Answer Figure



(1) (2) (3) (4)

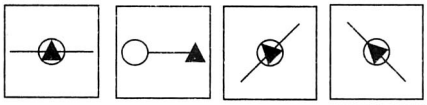
(A) 1 (B) 2 (C) 3 (D) 4

24. Problem Figure



(A) (B) (C) (D)

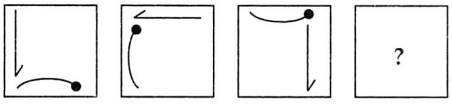
Answer Figure



(1) (2) (3) (4)

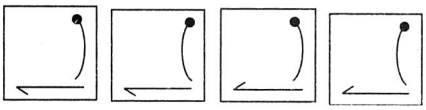
(A) 1 (B) 2 (C) 3 (D) 4

25. Problem Figure



(A) (B) (C) (D)

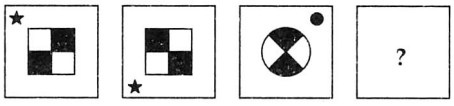
Answer Figure



(1) (2) (3) (4)

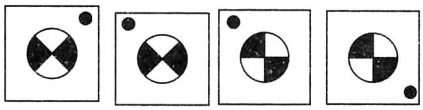
(A) 1 (B) 2 (C) 3 (D) 4

26. Problem Figure



(A) (B) (C) (D)

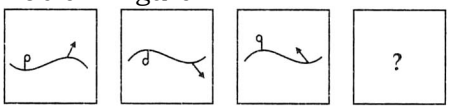
Answer Figure



(1) (2) (3) (4)

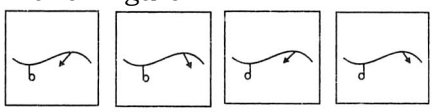
(A) 1 (B) 2 (C) 3 (D) 4

27. Problem Figure



(A) (B) (C) (D)

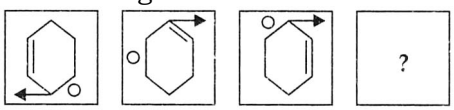
Answer Figure



(1) (2) (3) (4)

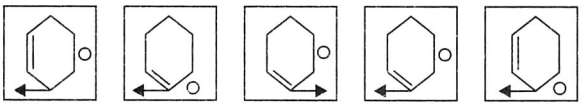
(A) 1 (B) 2 (C) 3 (D) 4

28. Problem Figure



(A) (B) (C) (D)

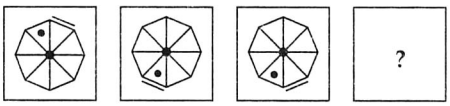
Answer Figure



(1) (2) (3) (4) (5)

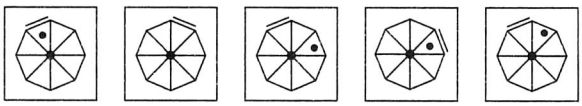
(A) 1 (B) 2 (C) 3 (D) 4

29. Problem Figure



(A) (B) (C) (D)

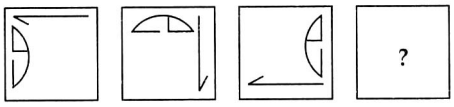
Answer Figure



(1) (2) (3) (4) (5)

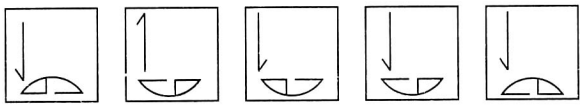
(A) 1 (B) 2 (C) 3 (D) 4

30. Problem Figure



(A) (B) (C) (D)

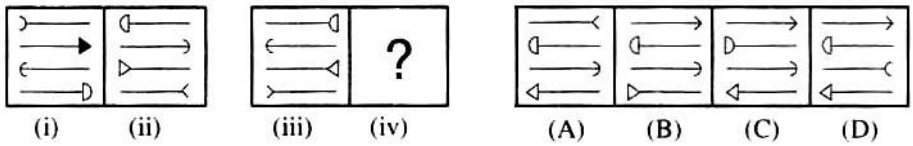
Answer Figure

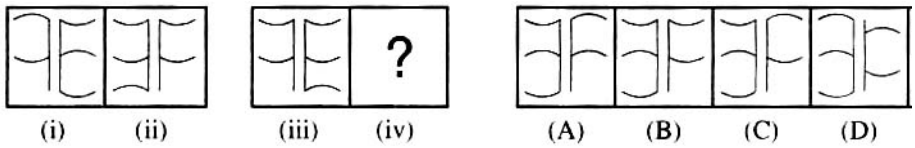


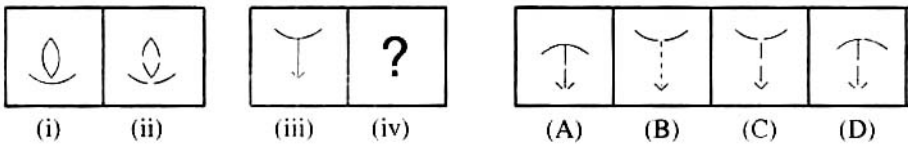
(1) (2) (3) (4) (5)

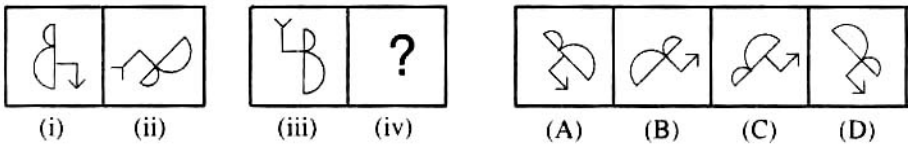
(A) 1 (B) 2 (C) 3 (D) 4

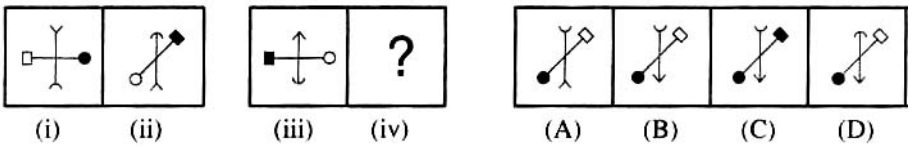
***Direction :* (31 to 40)** The figures on the left are 'Problem Figures' and those on the right are 'Answer figures'. Problem figures are presented in two units. The first unit contains two figures and the second unit contains one figure and a question mark in place of fourth figure. There is some relationship in the two figures of the first unit of the problem figure. The same relationship also exists between the two figures of the second unit of the problem figures.

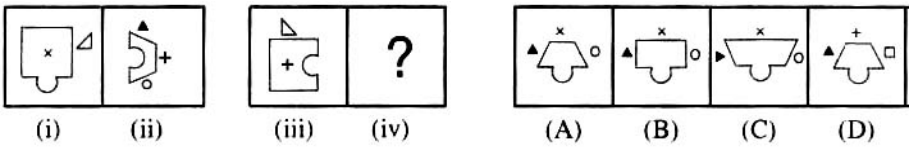
31. 

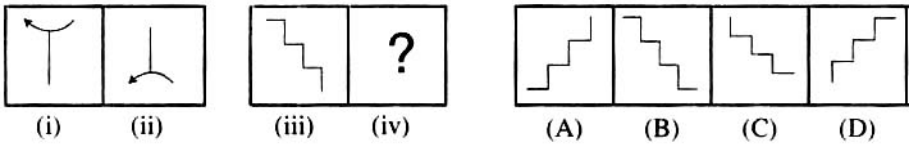
32. 

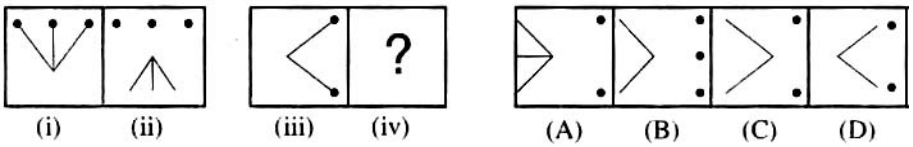
33. 

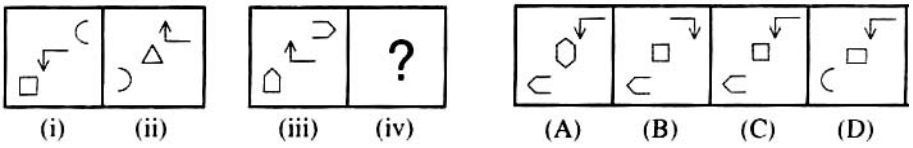
34. 

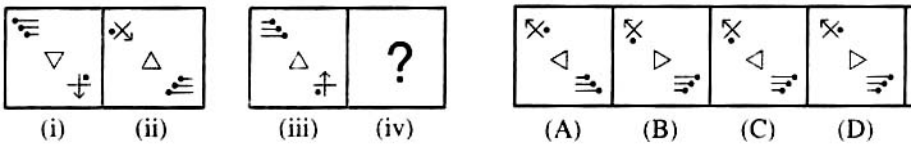
35. 

36. 

37. 

38. 

39. 

40. 

ANSWER KEYS

Answer Key –1. Number Series									
Assignment – 1									
1	2	3	4	5	6	7	8	9	10
B	A	D	B	B	C	D	B	D	C
11	12	13	14	15	16	17	18	19	20
C	C	A	C	A	C	B	B	C	C
Assignment – 2									
21	22	23	24	25	26	27	28	29	30
C	C	C	B	C	C	C	C	C	A
31	32	33	34	35	36	37	38	39	40
B	C	D	A	B	C	D	C	C	C
PREVIOUS YEAR NTSE QUESTIONS									
41	42	43	44	45	46	47	48	49	50
D	B	B	C	B	C	B	A	B	C
51	52	53	54						
C	C	C	B						

Answer Key – 2. Letter Series									
Assignment – 1									
1	2	3	4	5	6	7	8	9	10
D	C	A	C	D	B	B	B	C	A
11	12	13	14	15	16	17	18	19	20
A	B	B	D	B	C	D	A	B	D
Assignment – 2									
21	22	23	24	25	26	27	28	29	30
D	C	B	D	D	C	C	C	D	A
31	32	33	34	35	36	37	38	39	40
D	C	D	C	B	C	C	B	D	D
PREVIOUS YEAR NTSE QUESTIONS									
41	42	43	44	45	46	47	48	48	50
B	D	D	D	A	D	D	C	A	B

Answer Key – 3. Letter Repeating Series									
Assignment – 1									
1	2	3	4	5	6	7	8	9	10
A	B	A	B	D	B	D	C	B	D
11	12	13	14	15	16	17	18	19	20
D	D	A	B	B	D	C	B	A	C
Assignment – 2									
21	22	23	24	25	26	27	28	29	30
B	D	B	D	A	D	B	C	C	A
31	32	33	34	35	36	37	38	39	40
B	B	A	A	C	C	A	C	A	B
PREVIOUS YEAR NTSE QUESTIONS									
41	42	43	44	45	46	47	48	48	50
C	C	C	B	D	A	C	B	D	B

Answer Key – 4. Number Analogy									
Assignment – 1									
1	2	3	4	5	6	7	8	9	10
B	B	C	A	D	A	B	D	A	C
11	12	13	14	15	16	17	18	19	20
B	B	C	A	D	C	A	B	B	C
Assignment – 2									
21	22	23	24	25	26	27	28	29	30
C	B	C	C	D	B	C	D	C	D
31	32	33	34	35	36	37	38	39	40
A	D	C	A	C	C	D	A	C	D
PREVIOUS YEAR NTSE QUESTIONS									
41	42	43	44	45	46	47	48	49	50
D	C	B	C	B	C	C	A	A	D

Answer Key – 5. Letter Analogy									
Assignment – 1									
1	2	3	4	5	6	7	8	9	10
A	D	B	D	A	A	A	D	C	D
11	12	13	14	15	16	17	18	19	20
B	A	B	B	C	C	D	A	A	B
Assignment – 2									
21	22	23	24	25	26	27	28	29	30
A	D	A	A	D	A	A	D	C	D
31	32	33	34	35	36	37	38	39	40
B	C	D	A	A	D	A	C	D	B
PREVIOUS YEAR NTSE QUESTIONS									
41	42	43	44	45	46	47	48	49	50
B	D	B	A	C	B	B	B	A	C

Answer Key – 6. Word Analogy									
Assignment – 1									
1	2	3	4	5	6	7	8	9	10
C	B	D	A	C	D	C	C	D	C
11	12	13	14	15	16	17	18	19	20
D	D	C	D	D	C	C	A	D	A
Assignment – 2									
21	22	23	24	25	26	27	28	29	30
D	B	D	C	D	A	C	A	D	B
31	32	33	34	35	36	37	38	39	40
D	A	C	D	D	D	B	C	D	B
PREVIOUS YEAR NTSE QUESTIONS									
41	42	43	44	45	46	47	48	49	50
D	C	A	B	D	C	B	C	C	D
51									
D									

Answer Key – 7. Classification Number (Odd One Out Numbers)									
Assignment – 1									
1	2	3	4	5	6	7	8	9	10
B	D	C	C	D	C	A	B	C	D
11	12	13	14	15	16	17	18	19	20
C	D	C	C	B	C	A	A	C	D
Assignment – 2									
21	22	23	24	25	26	27	28	29	30
D	D	B	A	A	C	D	C	A	B
31	32	33	34	35	36	37	38	39	40
C	C	D	A	D	B	D	A	B	A
PREVIOUS YEAR NTSE QUESTIONS									
41	42	43	44	45	46	47	48	49	50
A	B	B	C	A	D	B	D	C	D

Answer Key – 8. Classification Letter (Odd One Out Letters)									
Assignment – 1									
1	2	3	4	5	6	7	8	9	10
D	C	A	A	B	A	D	B	D	B
11	12	13	14	15	16	17	18	19	20
D	B	C	D	A	C	A	C	D	C
Assignment – 2									
21	22	23	24	25	26	27	28	29	30
A	C	B	D	D	D	A	B	D	A
31	32	33	34	35	36	37	38	39	40
D	D	B	D	D	B	A	A	D	D
PREVIOUS YEAR NTSE QUESTIONS									
41	42	43	44	45	46	47	48	49	50
D	D	C	D	A	C	B	D	B	A

Answer Key – 9. Classification Word (Odd One Out Word)									
Assignment – 1									
1	2	3	4	5	6	7	8	9	10
C	B	D	C	A	B	D	D	B	A
11	12	13	14	15	16	17	18	19	20
C	A	A	A	B	B	A	D	C	D
Assignment – 2									
21	22	23	24	25	26	27	28	29	30
C	A	A	C	B	C	B	D	D	C
31	32	33	34	35	36	37	38	39	40
C	D	D	D	C	D	B	A	B	C
PREVIOUS YEAR NTSE QUESTIONS									
41	42	43	44	45	46	47	48	49	50
C	D	C	D	D	A	A	D	D	C

Answer Key – 10. Magic Square									
Assignment – 1									
1	2	3	4	5	6	7	8	9	10
B	D	A	C	B	D	B	A	D	C
11	12	13	14	15	16	17	18	19	20
D	A	D	B	B	A	B	C	C	B
Assignment – 2									
21	22	23	24	25	26	27	28	29	30
C	D	D	C	D	C	C	A	D	B
31	32	33	34	35	36	37	38	39	40
A	D	B	C	D	D	D	A	B	C
PREVIOUS YEAR NTSE QUESTIONS									
41	42	43	44	45	46	47	48	49	50
C	C	B	B	D	D	C	D	A	A

Answer Key – 11. Magic Square									
Assignment – 1									
1	2	3	4	5	6	7	8	9	10
A	B	C	D	C	B	A	D	A	C
11	12	13	14	15	16	17	18	19	20
D	A	C	B	A	D	A	C	A	C
Assignment – 2									
21	22	23	24	25	26	27	28	29	30
B	D	C	B	D	B	D	A	C	B
31	32	33	34	35	36	37	38	39	40
C	B	A	D	B	C	C	A	B	A
PREVIOUS YEAR NTSE QUESTIONS									
41	42	43	44	45	46	47	48	49	50
D	A	B	A	D	D	C	A	B	A

Answer Key – 12. Inserting Numbers									
Assignment – 1									
1	2	3	4	5	6	7	8	9	10
D	C	B	A	A	C	B	A	C	A
11	12	13	14	15	16	17	18	19	20
C	B	C	D	C	D	D	C	C	B
Assignment – 2									
21	22	23	24	25	26	27	28	29	30
D	C	B	D	A	B	D	B	B	B
31	32	33	34	35	36	37	38	39	40
A	C	B	B	D	C	A	D	C	A
PREVIOUS YEAR NTSE QUESTIONS									
41	42	43	44	45	46	47	48	49	50
C	C	C	C	B	C	A	B	A	C

Answer Key – 13. Venn Diagram									
Assignment – 1									
1	2	3	4	5	6	7	8	9	10
C	A	B	D	C	D	A	B	D	B
11	12	13	14	15	16	17	18	19	20
A	D	B	D	C	B	B	A	B	C
Assignment – 2									
21	22	23	24	25	26	27	28	29	30
B	D	D	B	C	D	C	D	A	D
31	32	33	34	35	36	37	38	39	40
C	D	B	B	D	A	C	D	B	B
Competitive Corner									
41	42	43	44	45	46	47	48	49	50
B	B	A	B	D	C	B	C	A	B

Answer Key – 14. Blood Relation									
Assignment – 1									
1	2	3	4	5	6	7	8	9	10
A	C	C	D	D	B	B	D	B	B
11	12	13	14	15	16	17	18	19	20
A	B	B	C	D	C	B	B	B	B
Assignment – 2									
21	22	23	24	25	26	27	28	29	30
B	B	D	B	D	D	A	A	A	A
31	32	33	34	35	36	37	38	39	40
B	D	C	C	B	A	D	C	A	B
PREVIOUS YEAR NTSE QUESTIONS									
41	42	43	44	45	46	47	48	49	50
A	A	A	C	D	C	B	B	D	C

Answer Key – 15. Direction Sense									
Assignment – 1									
1	2	3	4	5	6	7	8	9	10
D	A	D	A	D	B	D	A	B	B
11	12	13	14	15	16	17	18	19	20
A	B	C	A	D	D	C	C	A	B
Assignment – 2									
21	22	23	24	25	26	27	28	29	30
B	C	D	C	D	A	A	D	B	B
31	32	33	34	35	36	37	38	39	40
A	D	C	C	A	A	A	D	C	B
PREVIOUS YEAR NTSE QUESTIONS									
41	42	43	44	45	46	47	48	49	50
D	C	C	A	A	A	B	D	D	A

Answer Key – 16. Mathematical Operations									
Assignment – 1									
1	2	3	4	5	6	7	8	9	10
D	C	A	D	D	A	D	B	C	A
11	12	13	14	15	16	17	18	19	20
C	D	D	C	B	A	A	B	C	D
Assignment – 2									
21	22	23	24	25	26	27	28	29	30
C	D	D	C	D	B	B	D	C	B
31	32	33	34	35	36	37	38	39	40
D	C	A	C	D	B	D	A	D	A
PREVIOUS YEAR NTSE QUESTIONS									
41	42	43	44	45	46	47	48	49	50
B	D	B	C	C	B	B	D	B	C

Answer Key – 17. Coding Decoding Test									
Assignment – 1									
1	2	3	4	5	6	7	8	9	10
C	C	A	A	A	D	C	A	D	A
11	12	13	14	15	16	17	18	19	20
B	D	A	D	B	B	B	C	A	B
Assignment – 2									
21	22	23	24	25	26	27	28	29	30
B	D	A	B	A	D	A	B	D	A
31	32	33	34	35	36	37	38	39	40
D	C	D	D	A	A	B	C	B	C
PREVIOUS YEAR NTSE QUESTIONS									
41	42	43	44	45	46	47	48	49	50
C	B	C	B	C	D	B	D	A	B

Answer Key – 18. Number and Ranking									
Assignment – 1									
1	2	3	4	5	6	7	8	9	10
B	D	D	C	A	B	D	B	B	A
11	12	13	14	15	16	17	18	19	20
C	C	B	D	C	B	D	A	C	C
Assignment – 2									
21	22	23	24	25	26	27	28	29	30
C	C	B	A	B	D	C	B	C	C
31	32	33	34	35	36	37	38	39	40
B	D	D	C	D	C	C	B	C	D
PREVIOUS YEAR NTSE QUESTIONS									
41	42	43	44	45	46	47	48	49	50
A	B	B	B	A	C	A	B	C	D

Answer Key – 19. Alphabet Test letter change									
Assignment – 1									
1	2	3	4	5	6	7	8	9	10
B	D	A	B	B	B	D	C	C	D
11	12	13	14	15	16	17	18	19	20
A	B	B	D	A	A	D	C	A	B
Assignment – 2									
21	22	23	24	25	26	27	28	29	30
A	D	C	C	D	B	C	C	B	B
31	32	33	34	35	36	37	38	39	40
C	D	D	C	D	B	B	D	C	D
PREVIOUS YEAR NTSE QUESTIONS									
41	42	43	44	45	46	47	48	49	50
C	B	C	A	C	D	B	C	C	B

Answer Key – 20. Logical Sequence of Words									
Assignment – 1									
1	2	3	4	5	6	7	8	9	10
D	C	C	B	D	B	B	D	B	D
11	12	13	14	15	16	17	18	19	20
D	B	D	C	C	C	B	B	B	D
Assignment – 2									
21	22	23	24	25	26	27	28	29	30
C	C	A	D	A	C	C	C	C	C
31	32	33	34	35	36	37	38	39	40
B	B	B	C	A	B	C	B	B	B
PREVIOUS YEAR NTSE QUESTIONS									
41	42	43	44	45	46	47	48	49	50
A	C	B	C	B	D	C	B	A	D

Answer Key – 21. Arithmetical Reasoning									
Assignment – 1									
1	2	3	4	5	6	7	8	9	10
B	D	A	A	A	A	D	D	A	D
11	12	13	14	15	16	17	18	19	20
D	D	D	D	D	D	B	C	C	B
Assignment – 2									
21	22	23	24	25	26	27	28	29	30
C	B	B	A	A	B	D	D	C	B
31	32	33	34	35	36	37	38	39	40
C	D	B	A	B	C	D	B	A	D
Competition Corner									
41	42	43	44	45	46	47	48	49	50
A	B	C	A	B	D	D	A	D	C

Answer Key – 22 Alphabet Test									
Assignment – 1									
1	2	3	4	5	6	7	8	9	10
C	B	D	D	B	B	B	B	B	D
11	12	13	14	15	16	17	18	19	20
D	C	D	C	C	C	B	B	B	B
Assignment – 2									
21	22	23	24	25	26	27	28	29	30
B	C	C	C	D	A	C	C	B	D
31	32	33	34	35	36	37	38	39	40
B	B	D	D	D	C	D	D	C	C
PREVIOUS YEAR NTSE QUESTIONS									
41	42	43	44	45	46	47	48	49	50
C	A	B	C	B	A	C	D	D	B

Answer Key – 23. Analytical Reasoning									
Assignment – 1									
1	2	3	4	5	6	7	8	9	10
D	C	D	D	D	D	C	A	C	A
11	12	13	14	15	16	17	18	19	20
D	D	A	D	C	C	B	C	C	D
Assignment – 2									
21	22	23	24	25	26	27	28	29	30
A	D	A	B	C	C	C	D	D	A
31	32	33	34	35	36	37	38	39	40
D	A	B	D	D	C	A	C	C	D
PREVIOUS YEAR NTSE QUESTIONS									
41	42	43	44	45	46	47	48	49	50
B	B	C	B	C	C	A	B	A	B

Answer Key – 24. Sitting Arrangement									
Assignment – 1									
1	2	3	4	5	6	7	8	9	10
A	C	B	C	B	D	D	C	C	C
11	12	13	14	15	16	17	18	19	20
D	B	C	B	A	C	B	D	D	C
Assignment – 2									
21	22	23	24	25	26	27	28	29	30
B	D	D	C	D	B	A	C	D	A
31	32	33	34	35	36	37	38	39	40
B	C	D	C	C	D	B	C	C	C
PREVIOUS YEAR NTSE QUESTIONS									
41	42	43	44	45	46	47	48	49	50
D	A	D	D	C	B	C	C	B	A

Answer Key – 25. Syllogism									
Assignment – 1									
1	2	3	4	5	6	7	8	9	10
A	D	A	C	D	D	A	B	D	D
11	12	13	14	15	16	17	18	19	20
A	C	D	C	D	A	D	B	B	A
Assignment – 2									
21	22	23	24	25	26	27	28	29	30
D	D	B	A	D	B	C	D	B	C
31	32	33	34	35	36	37	38	39	40
D	C	A	D	C	B	C	D	C	B
PREVIOUS YEAR NTSE QUESTIONS									
41	42	43	44	45	46	47	48	49	50
D	C	A	C	D	B	A	B	C	A

Answer Key – 26. Calendar									
Assignment – 1									
1	2	3	4	5	6	7	8	9	10
D	A	C	B	C	B	A	A	D	A
11	12	13	14	15	16	17	18	19	20
C	D	B	D	C	D	C	C	B	A
Assignment – 2									
21	22	23	24	25	26	27	28	29	30
C	A	C	D	D	D	A	B	B	C
31	32	33	34	35	36	37	38	39	40
D	D	A	A	D	B	C	B	D	C
PREVIOUS YEAR NTSE QUESTIONS									
41	42	43	44	45	46	47	48	49	50
D	B	C	B	A	C	C	B	B	C

Answer Key – 27. Clock									
Assignment – 1									
1	2	3	4	5	6	7	8	9	10
A	D	C	B	B	B	C	A	C	A
11	12	13	14	15	16	17	18	19	20
B	D	C	C	C	A	D	B	A	B
Assignment – 2									
21	22	23	24	25	26	27	28	29	30
B	A	B	C	D	C	A	B	A	B
31	32	33	34	35	36	37	38	39	40
C	C	A	B	A	A	C	C	B	C
PREVIOUS YEAR NTSE QUESTIONS									
41	42	43	44	45	46	47	48	49	50
B	C	B	B	D	D	D	D	D	B

Answer Key – 28. Cube and Dice									
Assignment – 1									
1	2	3	4	5	6	7	8	9	10
C	D	A	C	D	B	B	A	C	D
11	12	13	14	15	16	17	18	19	20
C	C	A	A	C	A	C	A	B	D
Assignment – 2									
21	22	23	24	25	26	27	28	29	30
A	D	C	D	C	A	D	D	C	B
31	32	33	34	35	36	37	38	39	40
B	A	B	D	A	C	B	D	A	C
Assignment – 3									
41	42	43	44	45	46	47	48	49	50
A	C	C	B	A	B	C	C	B	B

Answer Key – 29. Counting Figure									
Assignment – 1									
1	2	3	4	5	6	7	8	9	10
C	A	D	B	D	B	C	A	C	C
11	12	13	14	15	16	17	18	19	20
D	A	D	C	D	B	C	C	D	C
Assignment – 2									
21	22	23	24	25	26	27	28	29	30
C	B	B	C	C	C	D	A	C	B
31	32	33	34	35	36	37	38	39	40
C	A	C	A	C	D	B	A	C	B
Assignment – 3									
41	42	43	44	45					
A	D	B	B	A					

Answer Key – 30. Mirror Images									
Assignment – 1									
1	2	3	4	5	6	7	8	9	10
B	B	D	D	B	C	D	C	A	D
11	12	13	14	15	16	17	18	19	20
D	D	D	D	A	A	B	D	A	B
Assignment – 2									
21	22	23	24	25	26	27	28	29	30
B	D	C	B	D	D	A	C	D	C
31	32	33	34	35	36	37	38	39	40
D	C	D	B	D	D	C	A	D	B

Answer Key – 31. Classification									
Assignment – 1									
1	2	3	4	5	6	7	8	9	10
B	C	D	D	A	A	C	D	C	C
11	12	13	14	15	16	17	18	19	20
D	C	D	A	C	C	A	C	C	D
Assignment – 2									
21	22	23	24	25	26	27	28	29	30
D	D	B	D	D	D	A	B	D	D
31	32	33	34	35	36	37	38	39	40
C	B	B	D	D	D	A	C	C	A
PREVIOUS YEAR NTSE QUESTIONS									
41	42	43	44	45	46	47	48	49	
B	C	A	B	D	B	C	D	B	

Answer Key – 32. Series									
Assignment – 1									
1	2	3	4	5	6	7	8	9	10
C	D	B	B	B	D	C	D	C	A
11	12	13	14	15	16	17	18	19	20
D	D	C	D	B	A	A	D	D	D
Assignment – 2									
21	22	23	24	25	26	27	28	29	30
B	D	B	A	A	D	C	C	C	A
31	32	33	34	35	36	37	38	39	40
D	A	D	B	A	C	C	A	A	D

Answer Key – 33. Folding Paper Cutting & Transparent Paper Folding									
Assignment – 1									
1	2	3	4	5	6	7	8	9	10
B	D	A	B	B	B	C	C	C	D
11	12	13	14	15	16	17	18	19	20
C	C	C	B	C	D	B	C	C	B
Assignment – 2									
21	22	23	24	25	26	27	28	29	30
D	C	D	D	C	B	A	A	D	C
31	32	33	34	35	36	37	38	39	40
C	C	B	A	B	B	D	D	B	B

Answer Key – 34. Formation of Figure Analysis									
Assignment – 1									
1	2	3	4	5	6	7	8	9	10
B	D	B	D	C	D	A	C	D	C
11	12	13	14	15	16	17	18	19	20
B	D	A	C	D	C	B	A	A	B
Assignment – 2									
21	22	23	24	25	26	27	28	29	30
B	C	C	A	D	D	B	B	C	B
31	32	33	34	35	36	37	38	39	40
B	C	A	A	B	C	C	C	B	B

Answer Key – 35. Dot Situations									
Assignment – 1									
1	2	3	4	5	6	7	8	9	10
A	D	C	D	A	C	B	D	B	D
11	12	13	14	15	16	17	18	19	20
A	A	C	A	D	B	A	D	D	D
Assignment – 2									
21	22	23	24	25	26	27	28	29	30
D	A	B	A	D	A	A	B	D	C
31	32	33	34	35	36	37	38	39	40
B	B	C	A	D	A	D	A	D	D

Answer Key – 36. Embedded Figure									
Assignment – 1									
1	2	3	4	5	6	7	8	9	10
D	C	D	A	B	D	D	B	A	B
11	12	13	14	15	16	17	18	19	20
A	B	C	C	D	C	D	A	B	D
Assignment – 2									
21	22	23	24	25	26	27	28	29	30
B	C	B	B	C	A	D	B	C	C
31	32	33	34	35	36	37	38	39	40
D	D	D	A	D	D	D	D	D	D
PREVIOUS YEAR NTSE QUESTIONS									
41	42	43	44	45	46	47	48		
A	C	B	A	C	A	B	B		

Answer Key – 37. Water Image									
Assignment – 1									
1	2	3	4	5	6	7	8	9	10
B	A	D	C	B	D	C	C	B	B
11	12	13	14	15	16	17	18	19	20
A	A	C	D	C	A	A	C	B	A
Assignment – 2									
21	22	23	24	25	26	27	28	29	30
D	A	B	C	D	A	A	D	A	A
31	32	33	34	35	36	37	38	39	40
B	A	A	D	B	A	D	B	C	A

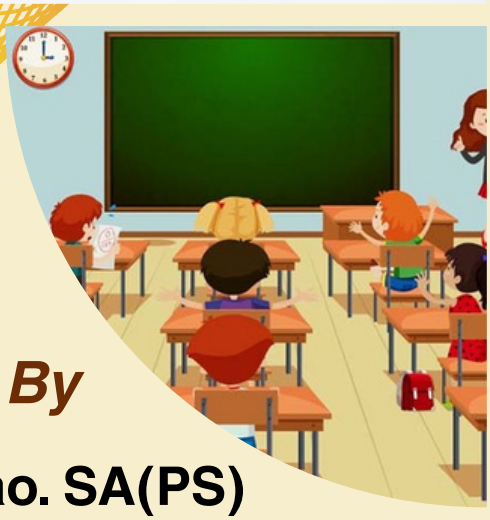
Answer Key – 38. Analogy									
Assignment – 1									
1	2	3	4	5	6	7	8	9	10
A	A	B	B	B	B	B	D	B	A
11	12	13	14	15	16	17	18	19	20
A	A	C	D	5	D	D	C	A	D
Assignment – 2									
21	22	23	24	25	26	27	28	29	30
B	D	A	D	C	B	A	D	C	D
31	32	33	34	35	36	37	38	39	40
D	C	C	C	B	B	A	C	C	D

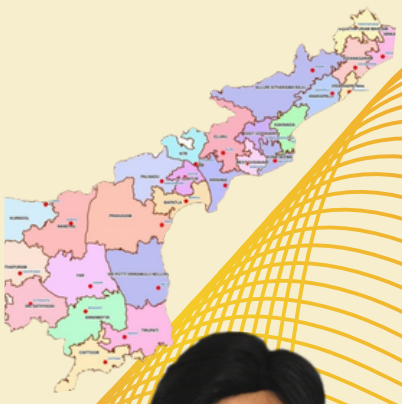
srini science mind

National Means Cum Merit Scholarship

Mental Ability Test

MAT
90 MARKS





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