# SSC PUBLIC EXAMINATIONS: JULY-2020 <br> GENERAL SCIENCE - PAPER- I \& II <br> MODEL PAPER <br> (English Medium) 

## Time: 3.15 Hrs.

## Instructions:

1. This paper consists of Part-A \& Part- B.
2. Part-A Contains questions from Physical Science and Part-B consists from Biological Science
3. Part-A \& Part-B contains 4 sections each
4. There are 33 questions in the paper.
5. There is internal choice in Section-IV of Part -A and Part- B.
6. Write all the questions visibly \& legibly.
7. 15 minutes are given for reading the question paper.

## PART-A

SECTION - I
Note: 1. Answer all the Questions
2. Each Question carries 1 Mark

1. The focal of the symmetrical convergent lens is 25 cm . What is the radius curvature of the lens
2. VSEPRT theory was proposed by
3. Define $\mathrm{p}^{\mathrm{H}}$ scale
4. Statement 1: The electronic configuration of carbon is $1 \mathrm{~S}^{2} 2 \mathrm{~S}^{2} 2 \mathrm{P}^{2}$

Statement 2: Carbon valence is 4
Write the correct answer of the following in your answer booklet
A) Both Statements are correct
B) Statement 1 is only correct
C) Statement 2 is only correct
D) Both Statements are wrong
5. Where do we place an object in front of convex lens in order to get virtual, erect and magnified image?
A) $\operatorname{At~} F_{2}$
B) $\operatorname{At~C} C_{2}$
C) Between $\mathrm{F}_{2}$ and $\mathrm{C}_{2}$
D) Between $2 \mathrm{~F}_{2}$ and Optic centre
6. Write any one use of alloys

## SECTION - II

Note: 1. Answer all the Questions
2. Each Question carries 2 Marks
7. Identify the mistake in the diagram and redraw the correct diagram in your answer booklet

8. Write any two questions to understand the formation of mirage
9. Assume and write the shape of the molecule whose $\mathrm{sp}^{3}$ hybridisation and bond angle is $104^{0} 31^{1}$

10 . Which chemicals are required to conduct esterification reaction in laboratory?

Note: 1. Answer all the Questions
2. Each Question carries 4 Marks
$4 \times 4=16$
11. Observe the table and answer the questions

| Element | Electronic configuration |
| :--- | :--- |
| A | $1 \mathrm{~s}^{2} 2 \mathrm{~s}^{2}$ |
| B | $1 \mathrm{~s}^{2} 2 \mathrm{~s}^{2} 2 \mathrm{p}^{6} 3 \mathrm{~s}^{2}$ |
| C | $1 \mathrm{~s}^{2} 2 \mathrm{~s}^{2} 2 \mathrm{p}^{2} 3 \mathrm{~s}^{2} 3 \mathrm{p}^{3}$ |
| D | $1 \mathrm{~s}^{2} 2 \mathrm{~s}^{2} 2 \mathrm{p}^{6}$ |

a) Which are the elements coming within the same period?
b) Which are the elements coming within the same group?
c) Which is the noble gas element?
d) To which group and period does the element ' $C$ ' belong?
12. Student 'Ammalu' conducted an experiment and find the focal length of symmetric convex lens.

| Object distance $(\mathbf{u})$ | Image distance(v) |
| :--- | :--- |
| 60 cm | 20 cm |
| 30 cm | 30 cm |
| 25 cm | 37.5 cm |
| 20 cm | 60 cm |

a) What is the focal length of the convex lens?
b) What is the radius of curvature of the lens?
c) Find the magnification of the lens when object is kept at 20 cm ?
d) What are the characteristics of the image when object is placed at 30 cm
13. Define the following
a) Magnetic flux density
b) Right hand rule
14. How do you appreciate the role of $\mathrm{p}^{\mathrm{H}}$ scale in classifying the substances into acids, bases and neutral?

## SECTION - IV

Note: 1. Answer all the Questions
2. Each Question carries 8 Marks
15.Write short notes on froth floatation process.
(OR)
Rainbow is an example for continuous spectrum-explain
16.How do you find experimentally the refractive index of material of a prism
(OR)
Suggest an experiment to prove that the rate of evaporation of a liquid depends on its surface area and vapour already present in surrounding air.

