

Model paper-1
SUMMATIVE ASSESSMENT-I
PHYSICAL SCIENCE – PAPER-1

(English medium)

(Max. Marks: 50)

Class: X

Time: 2.45 Hrs.

Instructions:


1. There are four sections and 33 questions in the paper.
2. Answers should be written in a given answer booklet.
3. There is internal choice in Section- IV
4. Write all the questions visible & legibly.
5. 15 minutes are given for reading the question paper and 2.30 hours given for answering questions

Section-I

Note:- 1. Answer all the questions

2. Each question carries 1/2 mark

12x1/2=6

1. What is the maximum focal length of the human eye lens?
2. What physical quantity is constant in the process of latent heat ?
3. Which scale is useful to measure H^+ ions concentration in a solution?
4. How many m_l values are possible for $l=3$
5.  A Convex lens is made of five different materials as shown figure.
How many images does it form?
6. Arrange the colours in rainbow order
i) Orange ii) Blue iii) Violet iv) Red v) Green
7. Bharani: Ice melts at $0^\circ C$ at STP
Bhagya: Ice melts below $0^\circ C$. Whom statement is correct?
8. Which salt is used in the manufacture of borax ?
9. Assertion(A): The speed of light in water is greater than that of benzene.
Reason(R): The speed of light in a medium is high when refractive index of the medium is low.
Which of the following is correct ?
A) A and R are true and R supports A B) A and R are true but R does not support A
C) A is true but R is false D) A is false but R is true
10. Write Planck's equation
11. Draw the symbol of Convex lens?
12. What is the basic principle of endoscope ?

Section-II

Note:- 1. Answer all the questions

2. Each question carries 1 mark

8X1=8

13. If we gave to kerosene, Turpentine and water. In these materials in which the speed of light is slower
14. What are the products formed when zinc granules react with sodium hydroxide?
15. Write the electronic configuration of Na^+
16. What is neutralization reaction?
17. Write SI unit of power of lens
18. Which type of images forms by eye lens?

19. Define Temperature

20. Write the four quantum number for the differentiating electron of sodium(Na) atom?

Section-III

Note:- 1. Answer all the questions

2. Each question carries 2 marks

8X2=16

21. Write the differences between evaporation and boiling

22. The focal length of a converging lens is 30 cm. An object is 60 cm from the lens. Where will the image be formed and what kind of image is it ?

23. Why does not distilled water conduct electricity ?

24. A person is suffering from myopia, his far distance is 5 m. what is the focal length of his eye lens

25. The electronic configuration of Oxygen is $1s^2 2s^2 2p^4$. What information that it gives?

26. Frame some questions to know about the formation of mirages

27. What is the reason behind the shining of diamond and how do you appreciate it?

28. Explain Hund's rule with an example

Section-IV

Note:- 1. Answer all the questions

2. Each question carries 4 marks

5X4=20

29. Suggest an experiment to prove that the rate of evaporation of a liquid depends on its surface area and vapour already present in surrounding medium.

(OR)

How do you find the focal length of a convex lens experimentally by object distance and image distance method?

30. Observe the table and answer the following questions

Substance	Lead	Brass	Zinc	Copper	Iron	Aluminum	Ice	Sea water	Water
Specific heat (Cal/g- ⁰ C)	0.031	0.092	0.093	0.095	0.115	0.21	0.50	0.95	1

a) Which metal is slowly heated up among all given in table ?

b) What is the SI unit of Specific heat?

c) Which metal is used to solder the wires? Why?

d) Which metal is best for cooking utensils? Why?

(OR)

Fill the table following, which is related to convex lens

Position of the Object	Position of the Image	Real/Virtual image	Inverted/Erected image	Enlarged/Diminished image
Beyond $2F_2$			Inverted	Diminished
	At $2F_1$	Real		Enlarged
Between $2F_2$ and F_2	Beyond $2F_1$	Real		
	Same side of the Object		Erected	Enlarged

31. Give important uses of washing soda and baking soda

(OR)

Explain the significance of three quantum numbers in predicting the positions of an electron in an orbit

32. Explain the formation of rainbow

(OR)

How do you verify experimentally that the angle of refraction is more than angle of incidence when light rays travel from denser to rarer medium

33. A student is unable to read the book near to him. What type of eye defect is this? Draw a ray diagram to illustrate this defect. Draw a ray diagram to show how this defect may be corrected using a lens

(OR)

Draw the diagram showing experimental arrangement to show CO_2 gas evolved when acids reacts with metal carbonates or metal hydrogen carbonates

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