

SUMMATIVE ASSESSMENT – I
MODEL QUESTION PAPER
X CLASS - PHYSICAL SCIENCE
(English Version)
Part – A & B

Time : 2.45 min

Marks : 40

Instructions:

- (i) This paper contains **Part-A** and **Part-B**.
- (ii) Part-A contains 3 sections, answer the questions under Part-A on separate answer book. Write the answer to the questions under Part-b on the Question paper itself and attach it to the answer book of Part-A..
- (iii) Answer all the Questions internal choice to the questions under section III.
- (iv) In the duration of 2.45hrs, 15 minutes of time is allotted to read the question paper.

Time : 2 hours

Marks : 30

Instructions :

1. Part-A comprises of three sections I, II, III.
2. All the questions are compulsory.
3. There is no overall choice. However, there is an internal choice to the questions under Section-III.

NOTE :

1. Answer all the Questions.
2. Answer each question in 1 or 2 sentences.
3. Each question carries ONE mark.

4 x 1 = 4 marks

1. We get dew on the surface of the cold soft drink bottle kept in open air. What is the process behind it?

(AS-1)

2. $2\text{PbO} + \text{C} \rightarrow 2\text{Pb} + \text{CO}_2$

In the above equation, name the compound which is acting as oxidizing agent and which is acting as reducing agent?

(AS-1)

3. When hydrochloric acid mixed with sodium hydroxide, which reaction takes place?

(AS-1)

4. Stars appear twinkling. Why?

(AS-1)

SECTION – II

NOTE:

1. Answer all the questions.
2. Answer each question in 4 or 5 sentences.
3. Each question carries TWO marks.

2 x 5 = 10 marks

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5. Prasad said evaporation and boiling are same. Ramesh said evaporation and boiling are different.

To whom do you support? Explain.

(AS-1)

6. Both acid and base reacts with metals and gives hydrogen gas. Justify your answer with examples. (AS-2)

7. A converging mirror of focal length 20 cm. is given and an object is placed at a distance of 40 cm.

in front of the mirror. Find the position of the object, nature and size of the image?

(AS-6)

8. Give two examples with balanced equation of acid-base reaction.

(AS-1)

9. Harika said “Mirage is an optical illusion”. Is it yes or no? How can you support your answer?

(AS-2)

SECTION – III

NOTE:

1. Answer all the questions.
2. Answer each question in 8 or 10 sentences.
3. There is internal choice for each question.
Only one option from each question is to be attempted.
3. Each question carries FOUR marks.

4 x 4 = 16 marks

10. Observe the table and answer the following.

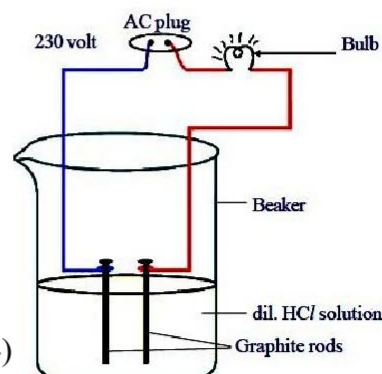
- 1) Which substance takes more time to raise the temperature?
- 2) Which substance takes less time to raise the temperature?
- 3) Which substances take same time to decrease the temperature?
- 4) Arrange the above substances in an order based on their rate of raise the temperature. (AS-4)

(OR)

Substance	Specific heat In cal/g-°C
Lead	0.031
Aluminum	0.21
Kerosene oil	0.50
Ice	0.50
Water	1
Sea water	0.95

See the figure and answer the following.

- 1) When switch on the current, does the bulb glows?
- 2) If we replace dil. HCl solution by glucose solution, then what happens?
- 3) If we replace dil. HCl solution by sodium hydroxide solution, then what happens?
- 4) What conclusions do you get by the above activity? (AS-4)



11. You are provide a plastic mug, one holed rubber stoppers, two graphite rods, two test tubes, 9V battery, wire, switch and water. By using all these how can you prove the release of O_2 and H_2 in electrolytic decomposition reaction of water? (AS-3)

(OR)

- “Acids react with carbonates and give carbon dioxide gas”. Suggest an activity to prove the above statement. How can you test for the released gas? (AS-3)

12. Explain the process of verification of the Ist law of reflection of light with an experiment. (AS-3)

(OR)

- Chemical displacement reactions differ from chemical decomposition reactions. Explain with an example for each. (AS-1)

13. Complete the following ray diagrams for convex lens when the object is placed in the given position. (AS-5)

Draw where the image is formed.



(OR)

- Zinc granules react with hydrochloric acid to give hydrogen gas. Draw a neat diagram of arrangement of apparatus to show the above reaction in activity. (AS-5)

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This summative assessment-I model paper was prepared for students idea, how CCE model questions will ask in the summative assessment-I, II, III as per the model given by the SCERT.

According to the SCERT model paper the questions for summative I, II, III will give based on the concepts from the syllabus.

19. Metal hydroxide + Carbon dioxide \rightarrow ()
 a) Metal + water + carbon b) Metal carbonate + hydrogen
 c) Metal carbonate + water d) Metal oxide + hydrogen + carbon
20. The formula used for calculating refractive index (R.I) of the glass slab ()
 a) R.I = Thickness of the slab/(Thickness of the slab + vertical shift)
 b) R.I= (Thickness of the slab + vertical shift) /Thickness of the slab
 c) R.I = (Thickness of the slab - vertical shift) /Thickness of the slab
 d) R.I = Thickness of the slab/ (Thickness of the slab - vertical shift)
21. The focal length of a lens is _____ when the distance of the object is U and the distance of the image is V. ()
 a) $f = UV/(U-V)$ b) $f = (U-V) /UV$ c) $f = (U+V)/UV$ d) $f = UV/(U+V)$
22. Consider a convex lens and match the following ()
- | Position of the image formed | Image characteristics |
|------------------------------|--------------------------------|
| A) between F and 2F | i) virtual, erect, magnified |
| B) beyond 2F | ii) real, inverted, diminished |
| C) same side of the object | iii) real, inverted, magnified |
| a) A-i, B-iii, C-ii | b) A-iii, B-i, C-ii |
| | c) A-ii, B-iii, C-i |
| | d) A-iii, B-i, C-ii |
23. Match the following set A and set B ()
- | Set-A | Set-B |
|--------------------------------|---------------------------|
| A) Acetic acid solution | i) Strong acid |
| B) Ammonium hydroxide solution | ii) Weak acid |
| C) Hydrochloric acid solution | iii) Strong base |
| D) Sodium hydroxide solution | iv) Weak base |
| a) A-i, B-iii, C-ii, D-iv | b) A-ii, B-iv, C-i, D-iii |
| c) A-i, B-iv, C-ii, D-iii | d) A-ii, B-iii, C-i, D-iv |
24. A student added sodium hydrogen carbonate to hydrochloric acid and made the following observations. ()
 i) a salt is formed.
 ii) the gas evolved turns lime water milky.
 iii) water is one of the products.
 The correct observations are
 a) i and ii b) i and iii c) ii and iii d) i, ii and iii
25. A bulb is kept at _____ the head light of the vehicle. ()
 a) center of curvature b) pole c) focal point d) convex surface
26. Suma is doing an experiment on total internal reflection. She observed at a particular incident angle the light ray travelling from denser to rarer medium, grazes the interface. What would be the angle of refraction at that position? ()
 a) 0° b) 30° c) 60° d) 90°
27. We arrange the screen in front of a concave lens to get the image of distant object method. If we put the screen at the focus, then the image is ()
 a) erected b) real c) enlarged d) blurred
28. At the time of water changes to water vapor, its temperature ()
 a) remains constant b) increase c) decrease d) can not say

29. The relative refractive index of the vacuum is ()
 a) 3×10^8 m/s b) 3×10^8 c) 1 d) 1 m/s
30. Which of the following is related to convex mirror? ()
 a) solar cooker b) vehicle head light reflector
 c) dish antenna d) rearview mirror
31. Corrosion can be prevented by ()
 i) galvanizing ii) shielding the metal surfaces
 iii) expose to moisture iv) making alloys
 a) iii only b) i and iii c) i, ii and iv d) i, iii and iv
32. Gayatri added water to base. Shilpa added base to water. Who did the dangerous activity. ()
 a) Both gayatri and Shilpa b) Gayatri
 c) Shilpa d) Nobody did dangerous activity
33. Suppose you observe the lemon kept in a glass of water then it ()
 a) bigger than its size b) smaller than its size
 c) same as its size d) disappears

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Answers for Bit Paper

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|-------|-------|-------|-------|-------|
| 14. d | 15. b | 16. a | 17. c | 18. a |
| 19. c | 20. d | 21. a | 22. c | 23. b |
| 24. d | 25. c | 26. d | 27. b | 28. a |
| 29. c | 30. d | 31. c | 32. c | 33. a |

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