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Total No. of Printed Pages: 4

Question Booklet Sl. No.

5438343

GENERAL SCIENCE, Paper – I (Physical Science)

(English Version)

Time: 2 Hours

Max. Marks: 50

Instructions:



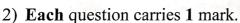
- 1) Question paper consists of 4 Sections and 17 Questions.
- 2) Internal choice is there only for Q. No. 12 in Section III and for all the questions in Section IV.
- 3) In the duration of 2 hours, 15 minutes of time is allotted to read the question paper.
- 4) All answers should be written in the answer booklet only.
- 5) Answer should be written neatly and legibly.



SECTION – I

 $(8 \times 1 = 8)$

Note: 1) Answer all the questions.





1. Predict and write why preparation of lime water is considered as an exothermic reaction.



2. Acidic nature of a substance is due to the formation of _____ ions in solution.

3. Observe the following table:

Substance	Lemon juice	Blood	Milk of magnesia	
pH value	2.2	7.4	10	

In the above table which is strong acid?



4. Which is the most ductile metal in nature?

P.T.O.



5.	Write	any	one	use of	vinegar



- 6. The human eye forms the image of an object at its ____
 - a) Cornea
- b) Iris
- c) Pupil
- d) Retina

- 7. Draw the symbol of an 'Ammeter'.
- 8. What is the commercial unit of electric energy?



SECTION – II

 $(3 \times 2 = 6)$

Note: 1) Answer all the questions.

- 2) Each question carries 2 marks.
- 9. Fill the table:

Class of compounds		Formula of functional group			
1. Alcohol	15 25 4 1 2 2 3 1 2 4 1 2 4	Ala			
2. H,O2		O - C - OH			



- 10. Frame any two questions to understand the concept of refraction.
- 11. Predict and write why the tungsten is used as filament in electric lamps?



SECTION – III

 $(3 \times 4 = 12)$

Note: 1) Answer all the questions.

- 2) Each question carries 4 marks.
- 12. Draw any one of the following diagrams.
 - A) Draw the ray diagrams of image formed when the object is placed in front of a concave mirror in the following positions:
 - i) at 'C'
 - ii) between P and F
 - B) Draw the diagram which shows that acid solution in water conducts electricity.





- 13. Give two important uses of each of the following:
 - 1) Bleaching powder

2) Baking soda



14.

Material medium	Air	Rock salt	Water	Diamond	Benzene
Refractive index	1.0003	1.54	1.33	2.42	1.50

Observe the above table and answer the following questions.



- i) Which medium has highest optical density?
- ii) In which medium speed of light is minimum?
- iii) In which medium the light travels faster?
- iv) Which medium has least optical density?



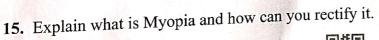
SECTION - IV

 $(3 \times 8 = 24)$

1) Answer all the questions.



- 2) Each question carries 8 marks.
- 3) Each question has an internal choice.



OR



Define the following terms:

- i) Electric current
- ii) Potential difference
- iii) Electric Resistance
- iv) Electric power.

P.T.O.







16. Write the balanced chemical equations for the following reactions.



- a) Calcium hydroxide + Carbon dioxide → Calcium carbonate + Water
- b) Zinc + Silver nitrate $\rightarrow Zinc$ nitrate + Silver
- c) Aluminium + Copper chloride -> Aluminium chloride + Copper
- d) Barium chloride + Potassium sulphate → Barium sulphate + Potassium chloride

OR

Explain the mechanism of the cleaning action of soaps.



17. Explain the experimental procedure to show that a current-carrying conductor placed in a magnetic field experiences force on it.

OR



Explain the experimental procedure to investigate the conditions under which iron rusts.

