

SAMPLE PAPER - 2008
Class - X
SUBJECT – SCIENCE

Time:2 hours and 30 min.

Max.Marks:60

General Instructions :

- 1 The question paper comprises of two sections A and B. You have to attempt both sections.
- 2 All questions are compulsory.
- 3 There is no overall choice. However, internal choice has been provided in all the three questions of five marks category. Only one option in each question to be attempted.
- 4 All questions of section A and section B are to be attempted separately
- 5 Questions 1 to 6 in section A and 17 to 19 in section B are short questions and carry 1 mark each .
- 6 Questions 7 to 10 in section a and 20 to 24 in section B are short answer type questions and carry 2 marks each .
- 7 Questions 11 to 14 in section A and 25 to 26 in section B are short answer type questions and carry three marks each .
- 8 Questions 15 and 16 in section A and question 27 in section B are long answer type questions and carry 5 marks each.

SECTION-A

- | | |
|---|---|
| 1 Give example of a basic and a neutral salt. | 1 |
| 2 What are olfactory indicators ? Give an example. | 1 |
| 3 Why tooth pastes are generally basic ? | 1 |
| 4 Define the term Resistivity. Write its unit. | 1 |
| 5 If the magnification of the body of size 2 cm is 3, What is the size of the image ? | 1 |
| 6 What is meant by aperture of a spherical mirror? | 1 |

- 7 How will you bring about the following conversions: 2
 a. Ethanol to Ethanoic acid
 b. Ethanol to Sodium ethoxide
- 8 How is Na_2CO_3 obtained from NaCl (give equations) 2
- 9 A metallic wire has resistance of 1ohm per metre.What will be the resistance of a 6 m long wire of same material, but with 4 times area of crosssection. 2
- 10 A current of 4A flows through a 12 V car head light for 10 min. How much energy transfer occurs during this time? 2
- 11 Write the equations for the reactions that occur at the electrodes during electrolysis a) $\text{NaCl}(\text{aq})$ b) $\text{NaCl}(\text{fused})$ 3
- 12 What are soaps? Give the advantages of detergents over soaps. Describe the mechanism of cleaning action of soaps. 3
- 13 Explain dispersion of light by a glass prism.What observation gave Newton the idea that the sunlight is made up of seven colours. 3
- 14 An object of height 7.5 cm is placed at a distance of 35 cm from a converging lens whose focal length is 15 cm
 1) What is the height of the image formed?
 2) What is the magnification produced by the lens
 3) Draw a ray diagram showing the image formation 3
- 15 a) Explain the formation of MgCl_2
 b) What were the basic properties of elements considered by Mendeleev for the classification of elements.What were the limitations of Mendeleev's Classification ? 2+3
- OR**
- a) Define the term, functional group and give two examples of it.
 b) Explain the following reactions 1)Hydrogenation 2)Esterification 3)Saponification 2+3

16 a) Define one watt hour.

- b) What is the difference between direct and alternating current. Give the advantage of AC over DC
c) Explain overloading and shortcircuiting.

OR

- a) What is the function of split rings in an electric motor ?
b) State and explain Flemings left hand rule.
c) What is the function of an earth wire? Why is it necessary to earth metallic appliances

SECTION-B

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|-------|---|-----|
| 17 | What is biodiversity? | 2 |
| 18 | Name the two endocrine glands in the brain. | 2 |
| 19 | What happens at the synapse between two neurons? | 2 |
| 20 | How do Mendel's experiments show that traits are inherited independently? | 2 |
| 21 | How does our body respond when Adrenaline is secreted into the blood. | 2 |
| 22 | What are auxins? Where is it synthesised? Write its role in bending of plants towards light. | 2 |
| 23 | Give three differences between male and female reproductive system. | 2 |
| 24 | Describe the structure and function of nephron with the help of a neat labeled diagram. | 2 |
| 25 | What is wind energy farm? Why it can be established only at specific location Give reasons to support your answer | 3 |
| 26 | Explain the process of digestion of fats and Protein in our body | 3 |
| 27 a) | How does genes control the characteristics? | 2+3 |

b) Explain the following 1) genetic drift 2) Acquired and inherited traits

OR

a) Differentiate between plant movements depend on growth and independent of it

b) Discuss the transportation of water and food in plants 2+3