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.

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1 Identify the substances that are reduced and oxidised. 1
$2H_2S + SO_2 \longrightarrow 3S + 2H_2O$

2 Write the name and structure of the acid present in nettle leaves? 1

3 What is the composition of stainless steel? 1

4 What do you mean by angle of deviation of a triangular glass prism? 1

5 A person uses spectacles of power +2D.What is the defect of vision he is suffering from? 1

6 What is S.I and commercial units of electrical energy? 1

7 How can three resistors of 2,3 and 6 ohms be connected to give a total resistance of a) 4 ohms b) 1 ohm 2

8 Write the balanced chemical equations for the following reactions:
a) Al_2O_3 react with HCl b) Zinc metal react with NaOH solution 2

9 What are isomers? Write the structure and names of the isomers of the organic compound having molecular formula $C_4H_8O_2$. 2

10 The current bill for a month of 30 days is Rs 90. If the rate is Rs 3 per kilowatt hour for 5 identical bulbs lighted 5 hours daily. What should be the power of each bulb. 2

11 What happens when (explain with equations)
a) 1M HCl is added to 1M NaOH containing phenolphthalein, dropwise
b) CO_2 gas is passed through lime water.
c) Lead is added to a solution of $CuCl_2$ 3

12 What do you mean by the term homologous series? Give the important characteristics of it. 3

13 An object placed 50cm from a lens produces a virtual image at a distance of 10 cm in front of the lens .Calculate the focal length of the lens and draw a diagram to show the formation of the image . 3

13 What do you mean by scattering of light? Describe the arrangement for observing scattering of light by colloidal solution. 3

15 a).Explain the conditions necessary for rusting with a suitable activity

b).Write the chemical equations for the extraction of copper and zinc. 3

OR

a) What are Carboxylic acids? How do they differ from mineral acids?

b) How will you bring about the following conversions? Explain giving suitable chemical equations.
1) Ethanol to Ethene 2) Ethanoic acid to Ester
3) Methane to Chloromethane 3

16 a) How can we induce current in a coil and when the induced current is found to be the highest

b) Give an experiment to demonstrate the force acting on current carrying conductor placed in a magnetic field. 2+3

OR

a) A copper wire has a diameter of 0.5mm and a resistivity of 1.6 ohmcm how much of this wire would be required to make a 10 ohm coil

b) State the Joule's law of heating. Explain any two practical applications of heating effect of electric current 2+3

SECTION-B

17 What is Coliform Bacteria? 1

18 What are the functions of Abscisic acid? 1

19 The flow of energy in the Biosphere is unidirectional. Why ? 1

20 What are the events that occur in photosynthesis? 2

21 What is feed back mechanism?Explain it in relation to hormonal action 2

22 Write two ways by which plants get rid of their waste. 2

23 Explain the process of speciation. 2

24 What are the advantages of watershed management? 2

25 What is a nuclear reactor? How is nuclear energy generated? Why is the large scale use of nuclear energy prohibitive? 3

26 What are the different methods of contraception? Give the reasons for adopting contraceptive methods. 3

27 a) How does the nervous tissue cause action?

b) How are Fats and Proteins digested in our body 2+3

OR

a) Discuss the advantages and disadvantages of using solar cells

b) Describe the biogas plant with the help of a neat labeled diagram 2+3