

Model Paper 2007
Class: X
Science and Technology

F.M.-80

Time – 2 ½ hrs

General Instructions:

1. The question paper consists of two sections A and B. You are to attempt both the sections and all questions are compulsory.
2. The candidates are advised to attempt all the questions of section A separately and section B separately.
3. Marks allocated to every question are indicated against it.
4. Question no. 1- 4 in section A and 17 and 18 in section B are to be answered in one word or one sentence.
5. Question no: 5-8 in section A and 19 and 20 in section B are to be answered in 30-40 words each.
6. Question no: 9-14 in section A and 21- 23 in section B are to be answered in 40 to 50 words each.
7. Question no: 15 and 16 in section A and 24 in section B are to be answered in 70 words each.

Section – A

1. What is physical equilibrium?
2. What do you mean by the solar constant? Give its value.
3. What is the refractive index of iron & glass ?
4. What is the composition of Magnalium ?
5. What is Formalin ? Write its uses ?
6. What is pH ? calculate the pH of the solution when hydrogen ion concentration is 1.0×10^{-7} M.
7. Define the term electrolysis. Mention two uses in real life.
8. What is Efflorescence ? Write its equation?
9. Define (1) looming (2)Mirage ?
10. What is meant by ore concentration (or ore enrichment)? Name four methods of ore concentration (or ore enrichment).
11. What is presbyopia ? Write its correction also?
12. Define big bang ? What is van allen radiation belt and expand INSAT?
13. How we prepare Ethanol by molasses? Explain?
14. What is liquid drop model and Write different between Fusion & fission?
15. How we prepare Ammonia Haber process ? Describ?

Or

Describe with chemical equations, what happens when,

- (i) Carbon dioxide gas reacts with ammoniacal brine in Solvay process.
- (ii) Washing soda is left exposed to the air.
- (iii) A mixture of finely powdered sand and sodium carbonate is heated in a tank furnace.

16. What is Green house effect ? Explain working of Solar cooker with diagram?

Or

1.2 \square 10^{22} of uranium (nuclei) undergo fission and the produced energy is grabbed by some water due to which its temperature rises by 100°C . Calculate the mass of water. [Given specific heat of water = $4200 \text{ J/kg}^{\circ}\text{C}$, Energy

Sec – B

17. Which organs in human body produce haploid cells through the division of diploid cells?
18. Who said that during the embryonic development of any individual whole evolutionary history is repeated.
19. Who performs the function of control and coordination plants? Mention their functions?
20. What is soil erosion ? How we can prevent it ?
21. Draw a labeled diagram to show the male reproductive part? Explain the various factors on which this whole system depends?
22. Explain the process of excretion in earthworm.
23. a) How gases are exchanged between blood and alveoli?
b) How do endocrine glands send hormone to their target organs?
24. . Explain the process of digestion in human beings.

Or

Draw a neat labeled diagram of human heart? How the transformation of oxygen takes place in it?