

Model Question paper  
Group 1 s-Block elements 1  
11th Standard

Chemistry

Reg.No. : 

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I. Answer all the questions.

II. Use blue pen only.

Time : 00:45:00 Hrs

Total Marks : 35

5 x 1 = 5

Part - A

- 1) Atoms of the same element having same atomic number but different mass number are called  
(a) isotopes (b) isobars (c) isotones (d) isomerism
- 2) Deuterium with oxygen gives  
(a) oxydeuterium (b) water (c) heavy water (d) all the above
- 3) Tritium is prepared by bombarding lithium with  
(a) neutrons (b) mesons (c) slow neutrons (d) all helium nucleus
- 4) At room temperature ordinary hydrogen consists of about  
(a) 25% para and 75% ortho (b) 75% para and 25% ortho (c) 99% para and 1% ortho (d) 1% para and 99% ortho
- 5)  $D_2O$  reacts with  $P_2O_5$  and gives  
(a)  $DPO_4$  (b)  $D_2PO_4$  (c)  $D_3PO_3$  (d)  $D_3PO_4$

Part - B

3 x 2 = 6

- 6) What are isotopes? Mention the isotopes of hydrogen.
- 7) Write a short notes on tritium.
- 8) How does deuterium react with nitrogen?

Part - C

3 x 3 = 9

- 9) How does heavy water react with metals?
- 10) How is hydrogen peroxide prepared in the laboratory?
- 11) How is hydrogen peroxide solution concentrated?

Part - D

3 x 5 = 15

- 12) How is deuterium obtained by diffusion process?
- 13) Write about the exchange reactions of deuterium.
- 14) What are ortho and para hydrogen? Explain.

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