



17103

15116

2 Hours / 50 Marks

Seat No.

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Instruction : All questions are compulsory.

Marks

1. Answer **any nine** of the following : **18**
- Define i) Atomic number ii) Atomic mass number
 - State Hund's rule of maximum multiplicity.
 - Define valency. Name the types of valencies.
 - State the factors affecting degree of Ionisation.
 - Define electrolyte. Give one example of strong and weak electrolyte.
 - State Faraday's second law of electrolysis.
 - Calculate the pH of solution whose hydrogen ion concentration is 5.5×10^{-5} gm ion per litre.
 - Define the term flux. Give the example of acidic and basic flux.
 - Define Alloy. Give the classification of Alloy with one example of each.
 - Give composition and uses of Wood's metal.
 - Define polymerisation. Give the types of polymerisation.
 - "PVC plastics are used Chemical Industries". Give reasons.
2. Answer **any four** of the following : **16**
- Give the assumption of Bohr's theory of atomic structure.
 - Explain the formation of MgO molecule with electronic diagram. State the type of valency.
 - Define isotopes and isobars. Give any two characteristics and examples of each.
 - Why Copper is electrorefined ? Describe the process of electrorefining of copper with suitable diagram.
 - Give any four assumption of Arrhenius theory of electrolytic dissociation.
 - A solution of the metal salt was electrolysed for 10 minutes with a current of 1.5 ampere. The weight of metal deposited 0.685 gm. What is electrochemical equivalent weight of metal ?
3. Answer **any four** of the following : **16**
- Define Metallurgy. Draw the flow chart for extraction of metal.
 - Describe the fusion method for preparation of Alloy with suitable diagram.
 - Distinguish between calcination and roasting.
 - State drawbacks of natural rubber.
 - Write any four uses of rubber based on its different properties.
 - How glass wool is prepared ? Give its properties and uses.

