

Chapter – atomic structure

1. Define the following term

- Isobar
- Isotopes
- Isotones
- Isoelectronics

2. Explain hund's rule , pauli's exclusion and aufbau's principle with suitable example .

3. Write the difference between of the following

- Atomic number & mass number
- Orbital and orbit
- Electrovalent & covalent

4. Write the electronic configuration of (1-30) atomic number

5. Write electronic configuration of the following:

- Fe, Fe²⁺, Fe³⁺
- Cu, Cu²⁺
- Cr, Cr²⁺, Cr³⁺,

6. What is quantum number and it's types?

7. What is chemical bond & explain its types?

8. what is valency? What are the types of valency?

Chapter – electrochemistry

1. What is degree of ionisation? What are the factors affecting degree of ionisation?
2. State & explain the arhenius theory of electrolytic dissociation?
3. Explain the concept of oxidation and reduction potential?
4. Explain the mechanism of electrolysis with suitable example?
5. State the Faraday's laws of electrolysis?
6. What is electrochemical series ? Why it is important application and its properties?
7. Difference between primary and secondary cell?

8. Explain the mechanism of electrolysis of NaCl solution and fuse NaCl using carbon electrode?
9. Explain the mechanism of electrolysis of CuSO_4 solution by using copper and platinum electrode?
10. What is the significance of electrolysis in electroplating & electrorefining ?

Chapter -corrosion

1. What is corrosion what are the types of corrosion?
2. Explain the mechanism of dry and wet corrosion?
3. What are the factor affecting the rate of corrosion?
4. What are the method that you can control the rate of corrosion?
5. Explain modification of environment, use of protective coating, coating of more active metals, choice of material?

Chapter- Engineering material

1. What is paint ? What are the characteristic of good paint?
2. What are the ingredients of paint & function of paint?
3. What is varnish and types of varnish?
4. Difference between paint and varnish?
5. Write the properties and application of the following terms:
 - Glasswool
 - Asbestos
 - Thermocol
6. What is polymer ? What are the types of polymer?
7. Difference between thermoplas and thermosetting in plastic
8. what are plastic? explain the formation of plastic by addition and condensation polymerization was suitable examples?
9. What is rubber? What are the types of rubber?
10. Explain the vulcanization of rubber?
11. What is natural rubber? what are the drawbacks of natural rubber?
12. Differentiate between natural rubber and synthetic rubber?
13. What is adhesive what are the characteristic of good and adhesive & classification

Chapter -Environmental effects

1. What is pollution ?what are the types & causes of pollution?
2. Define pollutant and give classification of pollutant?

3. What is air pollution ? What are the effects ,sources and how it can be control?
4. Air pollution due to internal combustion engine and how it can be control?
5. Write the short notes on the following
 - ESP
 - Deforestation & control measures
 - Depletion of ozone layer
 - Greenhouse effect
 - biomedical waste
 - Electronic waste
6. What is water pollution? What are the sources and effect of water pollution?
7. What is BOD and COD?
8. Write short notes on preventive environment management activities?

