

CHEMISTRY - 2011

Answer FIVE questions. First question is compulsory. Answer any FOUR from the rest. All questions carry equal marks

1. Write brief answer to the following (7x2=14)
 - a) What is fusion ?
 - b) Write the factors affecting corrosion.
 - c) Define octane number.
 - d) Write about reinforced plastics.
 - e) Write the composition of cement.
 - f) Define Electrode potential.
 - g) Engineering application and working of calomel electrode.
2. a) Describe the construction and working of calomel electrode.
b) Write about fuel cells.
3. a) Describe the thermal conversion process of solar energy.
b) Write about solar cells and their applications.
4. a) Describe the theories of corrosion.]
b) Explain the use of organic coating in corrosion prevention.
5. a) Write the preparative methods of synthetic petrol.
b) Explain the desalination of water by reverse osmosis method.
6. a) What are the sources for water pollution? How can you determine COD in water samples?
b) Explain the band theory of solids.
7. a) Define polymerization. Explain the mechanism of addition polymerization with suitable examples.
b) Write the preparation and properties of cellulose derivatives
8. Write short notes on the following :
 - a) Power reactors
 - b) Process of LPG
 - c) Uses of ceramics.