

Roll no. \_\_\_\_\_

ID: 220024

Semester: 2<sup>nd</sup>

Branch: Automobile, Mechanical, Mechanical (Tool & Die Design)

Subject Name: Applied Chemistry

Time Allowed : 3 Hrs.

MM: 60

**Section –A**

**Note: Multiple Choice questions. All questions are compulsory.**

**6x1=6**

- Q.1 The ore of Aluminum is \_\_\_\_\_.  
(a) Hematite (b) Bauxite  
(c) Magnetite (d) None of these
- Q.2 Which one of the following is non-metal?  
(a) CO<sub>2</sub> (b) Na  
(c) C (d) Ag
- Q.3 Composition of producer gas is \_\_\_\_\_.  
(a) CO + N<sub>2</sub> (b) CO + CH<sub>4</sub>  
(c) CO + H<sub>2</sub> (d) CH<sub>4</sub> + H<sub>2</sub>
- Q.4 The rate of change of viscosity with temperature is known as \_\_\_\_\_.  
(a) oiliness (b) surface tension  
(c) Viscosity Index (d) emulsification
- Q.5 Small molecules which combine with each other to form polymer are called \_\_\_\_\_.  
(a) atoms (b) molecules  
(c) polymers (d) monomer
- Q.6 In saline water, the rate of rusting \_\_\_\_\_.  
(a) increases (b) decreases  
(c) is zero (d) none of the above

**Section-B**

**Note: Objective/Completion type questions. All questions are compulsory.**

**6x1=6**

- Q.7 Brass is an alloy of copper and \_\_\_\_\_. (CO-2)
- Q.8 Metals are solid except \_\_\_\_\_. (CO-1)
- Q.9 Write the full form of LPG. (CO-3)
- Q.10 Give an example of solid lubricant. (CO-3)
- Q.11 PVC stands for Polyvinyl chloride. (True/ False). (CO-4)
- Q.12 Coating of Iron with Zinc by hot dipping is called \_\_\_\_\_. (CO-5)

**Section –C**

**Note: Short answer type Questions. Attempt any eight questions out of ten questions.**

**8x4= 32**

- Q.13 Write four characteristics of covalent compounds. (CO-1)
- Q.14 Explain froth flotation process for the concentration of sulphide ore. (CO-2)
- Q.15 Write four differences between Sigma ( $\sigma$ ) bond and Pi ( $\pi$ ) bond. (CO-1)
- Q.16 Calculate the molarity of a solution containing 0.5gm of NaOH dissolved in 250ml of solution. (CO-2)
- Q.17 Explain flash point and fire point. (CO-3)
- Q.18 What is polythene? Write its three uses. (CO-4)
- Q.19 Write a short note on Galvanizing. (CO-5)
- Q.20 Discuss the difference between dry and wet corrosion. (CO-5)
- Q.21 Explain condensation polymerization with example. (CO-4)
- Q.22 State four uses of non-metals. (CO-1)

### Section-D

**Note: Long answer questions. Attempt any two questions out of three questions.**

**2x8=16**

- Q.23 Explain Ion Exchange process of removal of hardness of water. (CO-2)
- Q.24 (a) Write four characteristics of a good fuel. (CO-3)
- (b) Write a short note on C.N.G. (CO-3)
- Q.25 (a) Write four characteristics of a good lubricant. (CO-3)
- (b) Explain pyrometallurgy and hydrometallurgy. (CO-1)