

APPLIED SCIENCE

Group A

Assignment

Code - 1602103/1601203

Dr. Rajwish Kr. Singh

TYPE-I

All questions Carry 4 marks

1. Define Electrolyte and non-electrolyte. what is the difference between metallic Conduction and electrolyte Conduction.
2. Define -
 - (a) Equivalent Conductivity
 - (b) Molar Conductivity
3. Define Corrosion. Explain Cause of Corrosion.
4. write cell reaction ; $Zn|Zn^{++}||Cu^{++}|Cu$
5. write cell reaction ; $Fe|Fe^{++}||Ag^{+}|Ag$
6. $Cr|Cr^{+++}||Pb^{++}|Pb$
7. $Fe|Fe^{++}||MnO_4^-|Mn^{++}$
8. $Zn|Zn^{++}||Cl_2|Cl^-$
9. what do you mean by Viscosity and Viscosity Index of Lubricant.
10. Describe Lubricant. write down main functions and characteristics of good Lubricant.

TYPE - II

Each questions carry 6.5 marks

11. Write names and formula of important ores of Fe. How Iron is extracted from red haematite ore?
12. Write Monomer of the following
(a) Teflon (b) Neoprene (c) Orlon (d) Nylon-6.6
13. Explain -
(a) cloud point (b) flash point (c) Fire point
14. What is electrolysis. Explain Faraday law of electrolysis. Define electrochemical equivalent of a substance.
15. Discuss Vulcanisation of Rubber
16. Explain Arrhenius theory of Ionisation
17. Explain Ohm's law. Explain resistance of metal increases with increase in temperature.
18. Calculate E_{mf} of the cell -
$$\text{Zn} | \text{Zn}^{++} (0.01\text{M}) || \text{Cu}^{++} (0.001\text{M}) | \text{Cu}$$

E^o of the cell is 1.1 volt
19. What is Refractory substance. What are the characteristics of good refractory.
20. Define -
(a) Sherardization (b) Colourisation (c) Chromising

