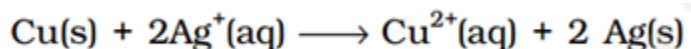


Model Question Paper:

DSPM UNIVERSITY, RANCHI
End Semester Examination-2020
B. Sc. (H), Semester-IV
Paper- DRH Chemistry- VIII (OLD)

Q-1. Referring a cell reaction:



- a) Calculate the Emf of a Galvanic cell.
- b) Derive Nernst Equation

Q-2. In reference to Iron (Fe) in atmosphere, discuss corrosion, its types, theories and method of combating it.

Q-3. How can you prepare an ester and amide derivatives from a carboxylic acid?

Q-4. Discuss the mechanism of:

- a). Hoffmann bromamide degradation reaction
- b). The Sandmeyer reaction
- c). Diazonium coupling reactions
- d) generation of nitrosonium ion.

Q-5. Explain the following terms:

- | | |
|---------------------------|-----------------------|
| a) Photochemical reaction | c) Lambert-Beers law |
| b) Energy of Photon | d) Stark-Einstein law |

Q-6. Write short notes on:

- a) Electrochemical or Daniell Cell
- b) Electrochemical series and its significances

Q-7. Discuss the mechanism of Gabriel phthalimide reaction for preparing a primary amine.

Q-8. Briefly state the significance of IR absorption spectra in characterizing organic molecules.

Q-9. Define conductivity and molar conductivity for the solution of an electrolyte. Discuss their variation with concentration.