DIRECTORATE OF DISTANCE EDUCATION



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M.Sc. (Chemistry) Assignment, June, 2023 Final Year

COURSE CODE: CHE109

- 1. Explain normal modes of vibration with respect to H2O and CO2, and their IR-spectra.
- 2. Explain the working principle of mass spectrophotometer. What is the base peak and molecular ion peak in mass spectra?
- 3. Explain Stark effect in rotational spectroscopy and its application in determination of dipole moment.

COURSE CODE: CHE110

- 1. Discuss Bioenergetics and ATP Cycle.
- 2. Discuss electron transfer in Biology.
- 3. What are the main Coenzymes? Discuss the mechanism of enzyme action.

COURSE CODE: CHE111

- 1. What are the water quality standard for drinking water?
- 2. What are the composition of Soil? Discuss it.
- 3. Explain Green House Effect and its global warming.

COURSE CODE: CHE113

- 1. Explain the effect of steric hinderance on Grignard reagent.
- 2. Explain memory effect with an example.
- 3. What do you understand by Frank-Condon Principle?

COURSE CODE: CHE114

- 1. Explain the structure of Narcotine...
- 2. What are the symptoms of the disease caused by the deficiency of vitamin 'A' ? Discuss the role of vitamin 'A' in right vision.
- 3. What are isoflavones? Give the synthetic route of Isoflavone.

COURSE CODE: CHE115

- 1. What is Antihypertensive ? How methyldopa is used a potent Antihypertensive agent ?
- 2. Write down the structure of Indole.
- 3. Explain the following:
 - (a) Why pyrazole is subjected to electrophilic substitution reaction at position 4.
 - (b) Reaction of pyrazole with oxidising and reducing agent.

Note: Last date of Assignment submission (By Post only) - 20.05.2023 Send only by Post. (Postal Address: - Director, Directorate of Distance Education, L.N. Mithila University, Denvi Road, Darbhanga- 846004)