



DIRECTORATE OF DISTANCE EDUCATION

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M.Sc. (Chemistry) Assignment, December, 2021 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) - 30.12.2021

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