



KUVEMPU UNIVERSITY
OFFICE OF THE DIRECTOR
DIRECTORATE OF DISTANCE EDUCATION
Jnana Sahyadri, Shankaraghatta – 577 451, Karnataka



Phone: 08282-256426; Fax: 08282-256370; Website: www.kuvempuuniversitydde.org
E-mails: ssgc@kuvempuuniversity.org; info@kuvempuuniversitydde.org

TOPICS FOR INTERNAL ASSESSMENT ASSIGNMENTS (2008-09)
Course: M.Sc. APPLIED CHEMISTRY (Previous)

Note: Students are advised to read the separate enclosed instructions before beginning the writing of assignments.

Out of 15 Internal Assignment marks per paper, 5 marks will be awarded for regularity (attendance) to Counseling/ Contact Programme/ Practical classes pertaining to the paper. Therefore, the topics given below are only for 10 marks each paper.

Answer Any TWO Questions from Each Paper. Each question carries FIVE marks.

Paper I: Analytical and Spectroscopic Techniques.

1. State Beer's Lambert's law and discuss its application in UV-Visible spectroscopy.
2. What is chemical shift? Discuss the factors influencing the chemical shift.
3. Discuss the basic principle of chromatography, and explain the lanthanide separation.
4. Explain the principle instrumentation and application of HPLC.

Paper II: Inorganic Chemistry

1. Discuss the Molecular Orbital Theory with an example.
2. Discuss the Schottky and Frankel defect with neat diagrams.
3. Describe the bonding and structure of S-N Compounds.
4. Discuss the ion-exchange separation in lanthanides.

Paper III: Organic Chemistry

1. Discuss aromaticity of annulenes.
2. Write a note on synthesis and stability of carbocations.
3. Write a note on effect of substituents on strength of acids.
4. Discuss the secondary structure of proteins.

Paper IV: Physical Chemistry

1. Discuss the Debye-Huckel Theory on strong electrolytes.
2. Write a note on batteries.
3. Discuss Clausius-Claperon equation.
4. Discuss about Carnot's engine.

