



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: 2017-18
Course: M.Sc. CHEMISTRY (Final)

Important Notes: (1) Students are advised to read the separate enclosed instructions before beginning the writing of assignments. (2) Out of 15 Internal Assignment marks per paper, 5 marks will be awarded for regularity (attendance) to Counseling/ Contact Programme classes pertaining to the paper. Therefore, the topics given below are only for 10 marks each paper.

Answer ANY ONE Question (1 or 2) from Each Paper. Each question carries TEN marks.

Paper V: Analytical Chemistry

1. a) Explain the chemical shift? Discuss the factors influencing the chemical shift.
b) Discuss the principle and instrumentation of fluorescence Spectrophotometry.
2. a) Discuss the basic principle of ESR spectroscopy.
b) Discuss various types of burners encountered in flame photometry.

Paper VI: Inorganic Chemistry

1. a) Explain the structure and stereochemistry of Haemoglobin.
b) Discuss the determination of stability constant of complexes by Spectrophotometric method.
2. Discuss the preparation, properties, structure and bonding of mononuclear metal carbonyls.

Paper VII: Organic Chemistry

1. a) Write a note on Jablonaski diagram.
b) Explain the mechanism and synthetic application of Reimer-Tiemann reaction.
2. a) Discuss the various types of photochemical reactions occurring in organic compounds.
b) Explain the structure and synthesis of nucleotides.

Paper VIII: Physical Chemistry

1. a) Explain the quantum theory of Raman spectroscopy.
b) Explain principle and theory involved in TGA technique.
2. a) Discuss the principle and instrumentation of Differential Scanning calorimetry (DSC).
b) Explain the concept of Entropy in reversible and irreversible processes.
