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

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*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.*

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

**Paper V: Advanced Inorganic Chemistry**

1. Explain the properties of complexes based on VBT and CFT. **5 Marks**
2. Write a note on Hemoglobin and Myoglobin. **5 Marks**
3. Write the classification of Organometallic compounds. Describe the hydrogenation of alkene's using Wilkinson catalyst. **5 Marks**
4. Discuss the usefulness of metal ions in biological systems. Explain the Na/K<sup>+</sup> pump in transport of ion across the membranes. **5 Marks**

**Paper VI: Bio-organic and Medicinal Chemistry**

1. Write a note on sigmatropic rearrangement. **5 Marks**
2. Discuss the mechanism and synthetic approach of Stobbe condensation reaction. **5 Marks**
3. Discuss the synthetic application of 1,3 dithiane. **5 Marks**
4. Discuss the synthesis of Indomethacin. **5 Marks**

**Paper VII: Polymer Chemistry and Technology**

1. Discuss radical polymerization. **5 Marks**
2. Write a note on Polymers. **5 Marks**
3. Discuss the moulding techniques involved in polymer technology. **5 Marks**
4. Discuss the molecular determination of polymers. **5 Marks**

**Paper VIII: Selected Topics in Industrial Chemistry**

1. Discuss theory application of crystallization. **5 Marks**
2. Write a note on ISO 9000 series. **5 Marks**
3. Discuss about chloroalkaline products. **5 Marks**
4. Manufacture of aluminum by alumino thermal process. **5 Marks**

