

SEMESTER VI**CHEMISTRY PRACTICALS – ELECTIVES 3 & 4****PRACTICAL****Program: B.Sc.****Course Code: U20/CHE/DSE/603-604/P****Course: DSE 3 & 4****No. of Credits: 1****Max. Hours: 30****Max. Marks: 50****Hours per week: 3****COURSE OBJECTIVE:**

To apply the knowledge of synthetic methods in Chemistry to prepare drugs, nanoparticles and polymers

COURSE OUTCOMES:

CO1: Synthesize drugs, nanoparticles and polymers.

CO2: Determine and describe the physical and chemical properties of various materials.

1. Preparation of Aspirin (conventional and green method)
2. Preparation of Paracetamol.
3. Preparation of Thiobarbituric acid.
4. Preparation of PMMA.
5. Preparation of Fluorescein.
6. Determination of acid value of a given polymer sample.
7. Preparation of Polyaniline.
8. Determination of molecular weight of polyacrylic acid by conductometry.
9. Synthesis of Nano particles:
 - a) Preparation of nano silver.
 - b) Preparation of nano ZnO.
 - c) Preparation of Ferrofluid.
 - d) Preparation of nano CuO.

Reference Books:

1. Krupadanam.D, Vijayaprasad.D, Varaprasad Rao.K, Reddy.K.L.N, Sudhakar.C, (2001), Drugs, Universities Press (India) Limited.
2. Patrick.G, (2001), Medicinal Chemistry, BIOS Scientific Publications
3. Kulkarni.K.S, (2011), Nanotechnology- Principles & Practices, Co-Published By Springer International Publishing Company, Switzerland, New Delhi, Capital Publishing Company.
4. Stocchi.E, (1990), Industrial Chemistry, Vol-I, U.K, Ellis Horwood Ltd.
5. Kent.J.A, Riegel's Handbook Of Industrial Chemistry, Vol: 1, Eleventh Edition; New Delhi, CBS Publishers.
6. Vasant R. Gowariker, N. V. Viswanathan, Jayadev Sreedhar, Polymer Science, New Age International, 1986.

CHEMISTRY PRACTICALS – ELECTIVES 3 & 4**MODEL PRACTICAL PAPER****Course Code: U20/CHE/DSE/603-604/P****Credits: 1****Max. Marks: 50****Max. Time: 2 Hrs**

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| 1. Synthesis of Drugs. | 10M (CO1) |
| 2. Determination of acid value/molecular weight of Polymers. | 20 M (CO2) |
| 3. VIVA-VOCE | 10M |
| 4. Record and Attendance | 10M |