

## Curriculum Plan (odd Semester 2024)

Teacher Name: **Dr. SHWETA GUPTA**

Course: B.Sc. (H) Chemistry, Sem V

Paper Name: **(DSE-8): Applied Organic Chemistry**

S.No.	Contents	Allocation of lectures	Month wise schedule to be followed	Assignments/ Presentations etc
1	<b>Unit 2: Polymers</b> Introduction and classification based on origin, monomer units, thermal response, mode of formation, structure, application and tacticity; di-block, tri-block and amphiphilic polymers; Weight average molecular weight, number average molecular weight, glass transition temperature (T <sub>g</sub> ) of polymers; Polymerisation Reactions-Addition and condensation. Mechanism of cationic, anionic and free radical addition polymerization; Ziegler-Natta polymerisation of alkenes. Preparation and applications of: Plastics - thermosetting (phenol-formaldehyde, Polyurethanes) and thermosoftening (PVC, polythene); Fabrics -natural (cellulose and synthetic derivatives of cellulose like rayon and viscose); synthetic (acrylic, polyamide, polyester); Rubbers-natural and synthetic: Buna-N, Buna-S, Neoprene, silicon rubber; Vulcanization; Polymer additives; Introduction to Specialty Polymers: electroluminescent (Organic light emitting diodes), Conducting, biodegradable polymers and liquid crystals.	12 hrs	first week of aug –first week of nov	-Syllabus overview -Reference books -Question paper discussion -students difficulties
2	<b>Unit 4: Pharmaceutical Compounds</b> Introduction, classification; Synthesis, uses, mode of action and side effects of the following drugs: Antipyretics -Paracetamol	2 hrs	first week nov – third week of nov	-Syllabus overview -Reference books -students difficulties -related problems