**M. Pharm 1st Semester Examination**

**Subject- Advanced Organic Chemistry (MPCI02T)**

**Full Marks- 75 Time – 3 hours**

**Answer any five questions:**

**1. Explain the structure, generation, stability and reaction of carbocation carbanion and free radical. (15)**

**2. Explain the mechanism, Orientation, stereo chemistry of elimination reaction (E1and E­2) (15)**

**3. Write the application with mechanism. (15)**

**(i) N Bromo succinimide**

**(ii) Triphenyl phosphine**

**(iii) Osmium tetroxide**

**4. What do you mean by the word disconnection and explain the order of event or guidelines for disconnection. (15)**

**5. Give the mechanism with example of the following naming reactions.**

**(i) Ullmann coupling reaction (15)**

**(ii) Dobner -Miller reaction**

**(iii) Shapiro and Suzuki reaction**

**6. How will you Synthesize. (15)**

**(i) Metronidazole (ii) Alprazolam**

**(iii) Chloroquine (iv) Promazine**

**(v) Mercaptopurine**

**7. Write a short note on (15)**

**(i) Nitrene**

**(II) Synthesis of pyrimidine**

**(iii) Synthesis of Acridine**