Roll No…….. **Total No. of Printed Pages: [01]**
Total No. of Questions: [13]

B. Pharmacy (Semester – 2nd)
PHARMACEUTICAL ORGANIC CHEMISTRY- I
Subject Code: BP-202T
Paper ID: [17170109]

Time: 03 Hours **Maximum Marks: 75**

Instruction for candidates:

1. Section A is compulsory. It consists of 10 parts of two marks each.
2. Section B consist of 9 questions of 5 marks each. The student has to attempt any 7 questions out of it.
3. Section C consist of 3 questions of 10 marks each. The student has to attempt any 2 questions.

Section – A **(2 marks each)**

Q1. Attempt the following:

a. What are qualitative tests for alcohol?
b. Give the structure of 7-amino-5-cyano-4-hydroxy-6-methyl heptanoic acid.
c. Give the structure of cinnamaldehyde.
d. How you will distinguish between aldehyde and ketone.
e. Define structural isomerism with a suitable example.
f. Give the structure of tartaric acid and succinic acid.
g. Why trichloroacetic acid is more acidic than acetic acid.
h. Define conjugated dienes.
i. What is the stability trend in alkenes?
j. Give the structure and use of iodoform.

Section – B **(5 marks each)**

Q2. Explain the Cannizaro reaction and cross-Cannizaro reaction along with the mechanism.
Q3. Write a note on nucleophilic addition in carbonyl compounds.
Q4. Analyse the effect of inductive and resonance effects on the acidity of carboxylic acids.
Q5. Compare and contrast the basicity of aliphatic amines and aromatic amines.
Q6. Give the structure and uses of Cetosteryl alcohol, Propylene glycol, and methyl alcohol.
Q7. Explain the factors influencing the rate of SN1 and SN2 reactions in alkyl halides.
Q8. Give an account of the free radical addition reaction of alkenes.
Q9. Give the structures of (a) Ethyl methyl ketone (b) 2-bromo-3-methyl pentane (c) 2,2-dimethyl hexane (d) 1,3-butadiene
Q10. Give an account of Ozonolysis.

Section – C **(10 marks each)**

Q11. Describe E1 and E2 reactions in detail including their mechanism and differences.
Q12. Give the reaction mechanisms of (a) Perkin reaction (b) Benzoin condensation. (6 + 4)
Q13. Write a short note on (a) SP2 hybridization in alkenes (b) Uses of Paraffins.