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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.