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Total No. of Pages : 02

Total No. of Questions : 10

B.Pharma (2011 to 2016) (Sem.-3)
PHARMACEUTICAL CHEMISTRY-IV
(Organic Chemistry-II)
Subject Code : BPHM-306
Paper ID : [D1127]

Time : 3 Hrs.

Max. Marks : 80

INSTRUCTION TO CANDIDATES :

1. **SECTION-A is COMPULSORY** consisting of **FIFTEEN** questions carrying **TWO** marks each.
2. **SECTION-B** contains **FIVE** questions carrying **FIVE** marks each and students have to attempt any **FOUR** questions.
3. **SECTION-C** contains **FOUR** questions carrying **TEN** marks each and students have to attempt any **THREE** questions.

SECTION - A**1. Answer briefly :**

- a. Give the structure and numbering of imidazole.
- b. Why thiophene is more stable and more aromatic than pyrrole and furan?
- c. Define and give example of non reducing sugar.
- d. Name and give the structure of disaccharide.
- e. Test to differentiate between aldoses and ketoses.
- f. Nucleotides.
- g. Difference between oil and fats.
- h. Draw and number the xanthine nucleus.
- i. Acid value and its significance.
- j. Give the structure of Quinoline and isoquinoline.

- k. Define and classify Lipids.
- l. Give the structure of maltose and discuss its structure determination
- m. Glycolipids.
- n. Give full name of DNA and its four bases.
- o. What are α , β unsaturated carbonyl compounds.

SECTION-B

- 2. Michael addition.
- 3. Outline purine biosynthesis.
- 4. Explain mechanism of Killiani Fischer synthesis.
- 5. Give a detailed account on Coumarins.
- 6. Discuss Ruff degradation conversion of aldopentose to aldohexoses.

SECTION-C

- 7. Name and give the structure of two heterocyclic systems with one and two nitrogen. Explain their method of synthesis and give their reactions.
- 8. Name and give the structure of the smallest unit of biological molecule proteins. Give a detailed account on its primary structure and biological significance of proteins.
- 9. Discuss in detail the steps involved mechanism stereochemistry and kinetics of aromatic electrophilic addition reactions.
- 10. Give the principle, procedure, reactions involved, formula and applications of saponification method of oil analysis.