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Total No. of Pages : 02

Total No. of Questions : 10

B.Pharmacy

**PHARMACEUTICAL CHEMISTRY-IV (ORGANIC CHEMISTRY-II)**

Subject Code : BPHM-306

M.Code : 46226

Time : 3 Hrs.

Max. Marks : 80

**INSTRUCTIONS TO CANDIDATES :**

1. Section-A is **COMPULSORY**.
2. Attempt any **FOUR** questions from section-B & any three questions from section-C.

**SECTION-A****1. Write short note on following :**

- a) Comment on the basicity of pyrrole.
- b) Give the synthesis of thiophene.
- c) Discuss the tautomerism of imidazole structure.
- d) Draw the structures of any two drugs having thiazole nucleus.
- e) Define anomer with one example.
- f) What is mutarotation?
- g) Why sucrose is non-reducing disaccharide?
- h) What is invert sugar? By drawing structure specify type of O- glycosidic linkage present in maltose.
- i) What is Millon's test?
- j) Name non-covalent bonding present in tertiary structures of protein.
- k) What is drying of oils?

- l) What is saponification value?
- m) Explain possible tautomerism in xanthine.
- n) Give any two examples of coumarin containing drugs.
- o) What is 4+2 cycloaddition reaction.

### SECTION-B

- 2. Explain the electrophilic substitution in pyrrole.
- 3. Give an account on the reactions of quinoline.
- 4. What is Kiliani-Fischer synthesis? Comment on its synthetic importance in carbohydrate chemistry.
- 5. Explain the mechanism of mutarotation in the cyclic structure of D-glucose.
- 6. Discuss the typical titration curve of amino acids.

### SECTION-C

- 7. What are the salient features of the Watson and Crick model of double helical structure of DNA?
- 8. Explain different types of non-covalent bonding required for the stabilization of DNA structure.
- 9. Name the various methods used to sequence the structure of polypeptides. Describe any one in detail.
- 10. Describe the synthesis and important chemical reactions of phenothiazine.

**NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.**