Roll No. | | | | | | | | | | | | **Total No. of Pages : 02**

Total No. of Questions : 10

B.Pharmacy (Sem.–3)

PHARMACEUTICAL CHEMISTRY-IV (ORGANIC CHEMISTRY-II)

Subject Code : BPHM-306

M.Code : 46226

Date of Examination : 21-12-2022

Time : 3 Hrs. **Max. Marks : 80**

INSTRUCTIONS 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. Write short note on following :

a) Comment on the basicity of pyridine

b) Give the synthesis of furan

c) Discuss the tautomerism of oxazole structure

d) Draw the structures of any two drugs having imidazole nucleus

e) Define epimer with one example

f) Comment on the cyclic structure of D-glucose

g) How will you differentiate maltose from sucrose?

h) Draw the structures of maltose and lactose and specify type of O-glycosidic linkage present in their structures.

i) Discuss ninhydrin reaction of proteins

j) Name various types of secondary structures of protein.

k) What is iodine value?

l) Draw the structures of ceramide and sphingosine.

m) Give any one synthesis of caffeine.

n) What are typical structural features of coumarins?

o) Give Michael addition reaction with one example.

SECTION-B

2. Explain the electrophilic substitution in pyridine.

3. Write a note on Skraup synthesis of quinoline.

4. Discuss the Ruff degradation conversion of aldopentose to aldohexose.

5. Give the comparative note on DNA and RNA.

6. Classify amino acids on the basis of general chemical characteristics of their R group.

SECTION-C

7. Give comparative account of nucleophilic and electrophilic addition to α, β unsaturated carbonyl compounds.

8. Comment on phosphodiesterase linkage present in DNA.

9. Why protein structure is studied at different levels? Discuss various levels of protein structure.

10. Describe the synthesis and important chemical reactions of pyridine.

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.