Roll No. | | | | | | | | | | | | |

Total No. of Pages : 02

Total No. of Questions : 10

B.Pharmacy (Sem.–3)

PHARMACEUTICAL CHEMISTRY-IV (ORGANIC CHEMISTRY-II)

Subject Code : PHM-232

M.Code : 46027

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 notes on :

a) What are symmetry allowed and symmetry forbidden reactions?

b) Define protein denaturation.

c) Difference between nucleoside and nucleotide.

d) What are reducing and non-reducing sugars?

e) Give any one synthesis for aziridine.

f) Why does pyrazole exist as dimer?

g) Draw the structure of oxetane.

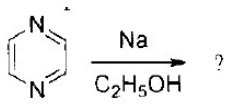
h) Name any two new organic reagents used in drug synthesis.

i) Give Woodward Hoffman's rule for electrocyclic reactions.

j) Write the ring structure and nomenclature of oxazine.

k) What is Anchimeric assistance?

l) Complete the following reaction:-



m) Draw the structures of any two O-containing heterocyclic scaffold.

n) State Erwin-Chargaff s rule.

o) Differentiate protein from peptide.

SECTION-B

2. What is Diel's Elder reaction? Explain its stereochemistry.

3. Describe the stereoselective specific reaction with one example of each.

4. Give important chemical reactions of pyridine.

5. Describe the structures of various phosphatidic acid derivatives.

6. Discuss the structure of D-glucose.

SECTION-C

7. Compare the electrophilic substitution reactions of pyrrole, thiophene and furan.

8. Describe the following reactions of monosaccharides :

   a) Epimerization

   b) Various mechanism of osazone formation

   c) Oxidation

9. Describe various methods employed for determination of sequence of amino acid in proteins and peptides.

10. Give detailed account on structure of DNA.

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.