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

Total No. of Pages : 02

Total No. of Questions : 10

B.Pharma (2012 to 2016) (Sem.–3)

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 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 briefly :

a. Explain the acidic character of pyrrole.

b. Define Iodine value in oil/fat. What is its significance?

c. Write down one structure of any nucleoside.

d. Write down the structure of Xanthine bases.

e. Differentiate between monosaccharides and disaccharides.

f. Write down structures of followings :

i. Furan,

ii. Imidazole,

iii. Oxazole

iv. Isoquinoline.

g. Write down the structures of maltose and cellobiose.

h. Describe Gabriels phthalimide synthesis for the preparation of amino acids.

i. Differentiate between essential and non-essential amino acids.

j. Explain the mutarotation.

k. Give the reaction of peptide bond formation.

l. Write two examples of coumarine.

m. Explain Michael acceptors with examples.

n. What will be product of reaction when m-chlorotoluene is reacted with sodamide?

o. Define the saponification and rancidification in oil.

SECTION-B

2. Describe the two synthetic method of each furan and imidazole.

3. Write down the Hantsch synthesis of pyridine with mechanism.

4. How will you synthesize sodium salt of alkyl benzene sulfonic acid?

5. Write short note on Ruff degradation.

6. Write down short note on DNA.

SECTION-C

7. Write down the classification of amino acids with structures and discuss the reactions of amino groups and carboxylic groups of amino acids.

8. How will you differentiate between sugar and non-sugars? Discuss the structure determination of a non-reducing disaccharide.

9. Why does pyridine prefer electrophilic substitution at 3-position and nucleophilic substitution at 2-position?

10. Write short notes on the following :

a. Nucleophilic aromatic substitution reactions.

b. Diels-Alder reaction

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.