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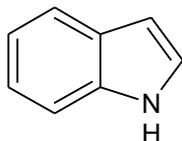
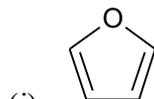
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B PHARM
(SEM-III) THEORY EXAMINATION 2019-20
PHARMACEUTICAL CHEMISTRY-III (HETEROCYCLIC & BIOORGANIC
CHEMISTRY)

Time: 3 Hours**Total Marks: 100****Note:** Attempt all Sections. If require any missing data; then choose suitably.**SECTION A****1. Attempt all questions in brief. 2 x 10 = 20**

a. Write down IUPAC names of



- b. Give one method of synthesis for indole.
 c. How glucose can be differentiated from fructose?
 d. Write down the reaction of glucose with phenylhydrazine.
 e. Write two tests for proteins.
 f. What is isoelectric point?
 g. Write down the functions of RNA.
 h. What are the hydrolytic products of nucleic acids?
 i. What is the difference between addition polymer and condensation polymer?
 j. Classify the vitamins.

SECTION B**2. Attempt any three of the following: 10x3=30**

- a. Write down method of preparation, chemical properties and Pharmaceutical importance of Pyrazole and Pyridine.
 b. Give the structure elucidation of glucose in detail.
 c. How amino acids are prepared?
 d. Discuss the structure of nucleic acid.
 e. Discuss the structure elucidation of thiamine.

SECTION C**3. Attempt any one part of the following: 10x1=10**

- a. Explain the Hantzsch-Widman (IUPAC) nomenclature for Heterocyclic compounds.
 b. Give the comparative account of pyrrole, furan and thiophene.

4. Attempt any one part of the following: 10x1=10

- a. Write note on
 (i) Identification tests for carbohydrates
 (ii) Reactions of monosaccharide
 b. Discuss the chemistry of polysaccharides in detail.

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5. Attempt any *one* part of the following: 10x1=10
- a. Explain end group analysis in detail.
 - b. Write note on
 - (i) Classification of amino acids
 - (ii) Types of protein structure
6. Attempt any *one* part of the following: 10x1=10
- a. How would you determine:
 - (i) Acid value, (ii) Saponification value Saponification value
 - b. Write note on: (i) Genetic code, (ii) Fatty acids
7. Attempt any *one* part of the following: 10x1=10
- a. Write in detail the reactions and steps of polymerization.
 - b. (1) Discuss the structure and functions of water soluble vitamins
(2) What are the possible pharmaceutical uses of the polymers.