

Paper Id:

150311

Roll No:

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

Time: 3 Hours**Total Marks: 70****Note: 1.** Attempt all Sections. If require any missing data; then choose suitably.**SECTION A**

- 1. Attempt all questions in brief.** **2 x 7 = 14**
- a. Draw the structure of glucopyranose and fructofuranose.
 - b. Why benzimidazoles have higher melting point and boiling points than pyrazoles?
 - c. What do you mean by Zwitterion? Write its example.
 - d. Define genetic code. Give its examples.
 - e. Define Reichert-Meissl value.
 - f. Draw the structure of Thiamine and Niacin with its uses.
 - g. Give the reaction of condensation polymerization.

SECTION B

- 2. Attempt any three of the following:** **7 x 3 = 21**
- a. Give the methods of preparation, chemical properties and pharmaceutical uses of Pyridine.
 - b. Write a detail note on end group analysis of proteins.
 - c. Give the methods of Preparations and chemical reactions of indole.
 - d. Write a detail note on genetic code.
 - e. What are polymers? Give its pharmaceutical application.

SECTION C

- 3. Attempt any one part of the following:** **7 x 1 = 7**
- (a) Give the methods of preparation, chemical reactions and pharmaceutical importance of Phenothiazines.
 - (b) Explain electrophilic substitution reaction in Imidazole with its mechanism.
- 4. Attempt any one part of the following:** **7 x 1 = 7**
- (a) What are amino acids? Explain methods of preparations of amino acids.
 - (b) Write a note on: i) Iodine value ii) Saponification value
- 5. Attempt any one part of the following:** **7 x 1 = 7**
- (a) What is polysaccharide? Write about the structural elucidation of starch.
 - (b) What are disaccharides? Explain the structure of sucrose.
- 6. Attempt any one part of the following:** **7 x 1 = 7**
- (a) Explain in detail about the structure elucidation of Retinol.
 - (b) What are fats, oils and waxes? Write about the chemical properties of fats, oils and waxes.
- 7. Attempt any one part of the following:** **7 x 1 = 7**
- (a) Write about the various components of DNA.
 - (b) What are nucleic acids? Explain in detail about the structure of RNA.