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B. PHARM.
(SEM- III) THEORY EXAMINATION 2018-19
PHARMACEUTICAL CHEMISTRY-IV
(HETEROCYCLIC & BIOORGANIC CHEMISTRY)

*Time: 3 Hours**Total Marks: 70***Note: 1. Attempt all Sections.****SECTION A****1. Attempt all questions in brief.****2 x 7 = 14**

- a. Define and classify Heterocyclic compounds with example.
- b. What are Monosaccharides? Write their identification tests.
- c. Differentiate between Essential and Non-essential Amino acids.
- d. What is Ruff Degradation?
- e. Define saponification value.
- f. What is Mutarotaion?
- g. Write the different functions of DNA.

SECTION B**2. Attempt any three of the following:****7 x 3 = 21**

- a. Write the note on Killiani-fischer synthesis.
- b. Write the chemical properties of Glucose.
- c. What are Nucleic acids? Classify it.
- d. Write a note on end group analysis.
- e. Write the physiological functions of vitamins in our body.

SECTION C**3. Attempt anyone part of the following:****7 x 1 = 7**

- a) Give the evidences for the Open Chain structure of Glucose.
- b) Write a note on analysis of Fat and oils.

4. Attempt anyone part of the following:**7 x 1 = 7**

- a) Describe the preparation, properties and pharmaceutical importance of Benzimidazole, Indole & Pyrazole.
- b) Define & classify vitamins. Discuss the structure of Vit-C.

5. Attempt anyone part of the following:**7 x 1 = 7**

- a) Write a brief note on structure elucidation of Vit-A.
- b) Explain solid phase peptide synthesis.

6. Attempt anyone part of the following:**7 x 1 = 7**

- a) Write a note on-
 (1) Pyrrole (2) Furon (3) Thiophene
- b) What is Polymerization? Write the reactions and pharmaceutical applications of polymers.

7. Attempt anyone part of the following:**7 x 1 = 7**

- a) Explain the structure elucidation of Sucrose.
- b) Write the method of preparation of Indole and Imidazole.