BPHARM
(SEM III) THEORY EXAMINATION 2018-19
Pharmaceutical Chemistry III- (Heterocyclic and Bio-organic Chemistry)
Time: 3 Hours   *Total Marks: 100*

Notes: *Assume any missing data.*

SECTION - A

1. **Attempt *all* questions in brief.**   **2 x 10 = 20**

   a) Define Halogination.
   b) Why Pyrrole is basic in nature?
   c) What is non-reducing sugar?
   d) How will you distinguish Glucose and Fructose?
   e) Name any four non essential amino acids.
   f) What are nucleic acids?
   g) What is a Zwitter ion?
   h) Write any two tests for the identification of Amino acid.
   i) Define Rancity.
   j) Define Fatty acids.

SECTION - B

2. **Attempt any *three* of the following:**   **10 x 3 = 30**

   a) Compare the Basicity of Pyrrole and Pyrrazole.
   b) Write in detail about "Classification of Carbohydrates". Write about the important reactions of D (+) Glucose.
   c) Write about structure of Protein.
   d) What do you understand by Amino acids? Classify them with suitable examples.
   e) Write in detail about Saponification Value.

SECTION - C

3. **Attempt any one part of the following:**   **10 x 1 = 10**
   a) Write about preparation, properties and pharmaceutical importance of Furon.
   b) Write about preparation, properties and pharmaceutical importance of Theophene.

4. **Attempt any one part of the following:**   **10 x 1 = 10**
   a) Write in detail about Howarth representation of Fructose.
   b) What do you understand about Mutarotation.

5. **Attempt any one part of the following:**   **10 x 1 = 10**
   a) Write in short about dipolar nature of amino acids.
   b) Write about some important reactions of amino acid.

6. **Attempt any one part of the following:**   **10 x 1 = 10**
   c) Define oil and fats. Give some important reactions of them.
   d) Write in detail about Genetic code.

7. **Attempt any one part of the following:**   **10 x 1 = 10**
   a) What are the Vitamins and classify them?
   b) Define Polymer. Write about step growth and chain growth polymerization.