**Printed Pages: 01** **Sub Code: PHARM 234**

**Paper Id:** 150334 **Roll No.** | | | | | | | | | | |

**B. PHARM.**
**(SEM III) THEORY EXAMINATION 2018-19**
**PHARMACEUTICAL CHEMISTRY – III (ORGANIC CHEMISTRY -II)**

***Time: 3 Hours*** ***Total Marks: 100***

**Note: 1.** Attempt all Sections.

**SECTION A**

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

a. Define active methylene group.
b. What is polynuclear compound?
c. Discuss the importance of pyridine.
d. Compare the structure of pyrrole & furan.
e. Write about Diel's alder reaction.
f. Define oligosaccharide with example.
g. Briefly differentiate essential and nonessential amino acid.
h. Define 1, 4-glycosidic linkage with structure.
i. Write about structure of any one nucleotide.
j. Give identification tests of protein.

**SECTION B**

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

a. Discuss method of preparation and chemical reactions of Acetoacetic ester and malonic ester.
a. Give the chemistry and pharmaceutical importance of pyridine and pyrimidine.
b. Explain reaction mechanism of Benzoin condensation.
c. What is mutarotation? Give the reaction of osazone formation.
d. What do you understand by polymerization? Discuss its mechanism.

**SECTION C**

**3. Attempt any *one* part of the following:** **10 x 1 = 10**

a. What are α, β- unsaturated carbonyl compounds? Write a note on cycloaddition reactions.
b. Discuss reaction mechanism of oppeneaur oxidation.

**4. Attempt any *one* part of the following:** **10 x 1 = 10**

a. Give method of preparation, chemistry and pharmaceutical importance of indole.
b. Classify carbohydrate. Discuss the structure of starch.

**5. Attempt any *one* part of the following:** **10 x 1 = 10**

a. Explain chemistry and identification tests of oils and fats.
b. Compare the cyclic structure of glucose and fructose.

**6. Attempt any *one* part of the following:** **10 x 1 = 10**

a. Describe mechanism of Bechmann rearrangement.
b. Discuss the basic chemistry of nucleic acid with structure.

**7. Attempt any *one* part of the following:** **10 x 1 = 10**

a. Give the chemistry and chemical reactions of Napthalene.
b. Write a note on primary and secondary structure of protein.