

B.Pharm II Year I Semester (R13) Supplementary Examinations November 2017

PHARMACEUTICAL ORGANIC CHEMISTRY – II

Time: 3 hours

Max. Marks: 70

PART – A
(Compulsory Question)

- 1 Answer the following: (10 X 02 = 20 Marks)
- Write the structures of the following heterocyclics with numbering:
(i) Pyrimidine. (ii) Pyridazine. (iii) Quinoline. (iv) Isoquinoline.
 - Write the structure of one drug containing furan ring.
 - Explain the term "plane of symmetry".
 - Write the structure of meso-tartaric acid.
 - Write the structure of the product formed on oxidation of glucose with bromine water.
 - Explain the term "epimerization".
 - Define 'Saponification value'.
 - What happens when an amino acid reacts with Ninhydrin? Give its importance.
 - Give an example for Diels-Alder reaction.
 - Explain in brief 'Witting reaction'.

PART – B
(Answer all five units, 5 X 10 = 50 Marks)**UNIT – I**

- 2
- Compare the basicity of pyridine, pyrimidine and ethylamine.
 - Write a note on electrophilic and nucleophilic substitution reactions of pyridine.
 - Write the structures of any two medicinal agents containing pyridine.

OR

- 3
- Explain any one method of synthesis of the following heterocyclics: (i) Indole. (ii) Isoxazole.
 - Write the structures of drugs (one each) containing the following rings: (i) Pyrazine. (ii) Quinoline.

UNIT – II

- 4
- Explain in detail about 'Fischer DL configuration' with suitable examples.
 - Discuss in detail "Stereoselective" and "Stereospecific" reactions.

OR

- 5
- Write a detailed account on optical activity of biphenyl compounds.
 - Write notes on: (i) Absolute configuration. (ii) Octant rule. (iii) Meso compound.

UNIT – III

- 6
- Give the classification of carbohydrates and how the ring structure of glucose is established.
 - Write in detail the formation of osazone from fructose.

OR

- 7
- Write an account on Lobry De Bruyn Van Ekenstein reaction.
 - Write the structure and physiological importance of anthraquinone glycosides.

UNIT – IV

- 8
- Classify proteins and explain the methods of synthesis of polypeptides.
 - What is isoelectric point? And explain the Zwitterionic nature of amino acids.

OR

- 9
- Explain the acid value, saponification value and iodine value and discuss their significance in analysis of fats and oils.
 - Write the chemistry of oxytocin.

UNIT – V

- 10
- Write the mechanism of Michael addition reaction.
 - Explain in detail the MVP reduction.

OR

- 11
- Write a detailed note on Oppenauer oxidation.
 - Explain in detail the Witting reaction including its synthetic utility.