

II B.Pharmacy I Semester Supplementary Examinations, May 2017
ADVANCED PHARMACEUTICAL ORGANIC CHEMISTRY

Time: 3 hours

Max Marks: 75

Answer any FIVE Questions
All Questions carry equal marks

1. (a) Define the term heterocyclic compounds and discuss their nomenclature?
(b) Write a note on aromaticity of pyridine and furan? [8+7]
2. (a) Give a brief account on chemical properties of oxazole and isoxazole?
(b) Explain the chemical properties of imidazole and thiazole? [8+7]
3. Write a note on (a) Racemic mixture
(b) Optical activity
(c) Enantiomers
(d) chirality [4+4+3+4]
4. Describe the following (a) Osazone formation
(b) Mutarotation
(c) Epimerization
(d) Glycosidic linkage [5+3+3+4]
5. (a) Classify amino acids with suitable examples?
(b) What are essential and non-essential amino acids? Discuss role of amino acids in synthesis of proteins
(c) Write about essential and four non-essential amino acids with structures?. [5+5+5]
6. (a) Write the structures of digitalis glycosides and explain about the mechanism of action of cardiac glycosides
(b) Describe the source, structure and uses of cardiac glycosides [8+7]
7. (a) Write the structures & uses of uric acid, caffeine, theophylline and theobromine
(b) Give a brief account on structure of DNA and RNA [8+7]
8. Write the detailed mechanism and applications of:
(a) Beckmann rearrangement
(b) Phillips condensation reaction
(c) Mannich reaction
(d) Michael addition reaction [4+3+4+4]

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