

B.Pharm II Year I Semester (R09) Supplementary Examinations June 2017

**PHARMACEUTICAL ORGANIC CHEMISTRY - II**

Time: 3 hours

Max. Marks: 70

Answer any FIVE questions  
All questions carry equal marks

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- 1 (a) Write the structure and chemical reactions of acridine and isoquinoline.  
(b) Write the structure and aromaticity of pyrrole.
- 2 (a) Discuss the acidity and basicity of:  
(i) Furan. (ii) Pyrazole. (iii) Thiophene. (iv) Pyridine.  
(b) Discuss the structure and reactions of phenothiazine.
- 3 (a) Discuss in detail about relative configuration and absolute configuration.  
(b) Explain E and Z configuration of alkenes with suitable examples.
- 4 Write a note on:  
(a) Mutarotation.  
(b) Osazone formation.  
(c) Epimerization.  
(d) Lobry de Bruyn – Van Ekenstein reaction.
- 5 (a) Explain Zwitterionic nature and isoelectric point of amino acids.  
(b) Explain in detail about the primary, secondary, tertiary and quaternary structure of protein.
- 6 (a) What are glycosides? Write about  $\alpha, \beta$  - glycosidic linkages and physiological importance of glycosides.  
(b) Explain the principle and importance of:  
(i) Saponification value. (ii) Acid value. (iii) Iodine value.
- 7 (a) Write the structures and uses of uric acid, caffeine, theophylline and theobromine.  
(b) Write a note on nucleotides, nucleosides and the structure of DNA.
- 8 Write the mechanism and applications of:  
(a) Birch reduction.  
(b) Michael addition reaction.  
(c) Wittig reaction.  
(d) Curtius rearrangement.

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