

Code: 9R01103

R09

B.Pharm I Year (R09) Supplementary Examinations June 2018

**PHARMACEUTICAL ORGANIC CHEMISTRY – I**

(For 2009 (LC), 2010, 2011, 2012 regular &amp; 2011 (LC), 2012, 2013 lateral admitted batches only)

Time: 3 hours

Max. Marks: 70

Answer any FIVE questions  
All questions carry equal marks

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- 1 (a) Discuss hyper conjugation with example and define bond dissociation energy.  
(b) Explain concept of resonance with examples.
- 2 (a) Explain the mechanism of Anti-Markovnikov's rule with suitable example.  
(b) Write the stability of alkadienes and give the reaction of 1,4 addition reaction.
- 3 (a) Explain theory of reactivity and orientation in mono-substituted benzenes.  
(b) Define Huckel's  $4n+2$  rule and write the criteria for aromatic compounds.
- 4 (a) Write the stereochemistry of  $S_N1$  mechanism and define Walden inversion.  
(b) Explain the concept of benzyne ion.
- 5 (a) Write any two method of preparation of ethers.  
(b) Explain Kolbe's Schmidt reaction with mechanism.
- 6 (a) Outline the mechanism of Perkin's condensation.  
(b) Explain the mechanism of Aldol condensation.
- 7 (a) Explain ionization of carboxylic acid and write the structure of carboxylate anion.  
(b) Write the reaction mechanism involved in Hoffmann's degradation reaction.
- 8 (a) Write any two methods of preparation for nitriles.  
(b) Arrange the order of basicity of aniline, trimethyl amine & methyl amine. Give the reason.

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