

**Second Year B.Pharm Degree Supplementary Examinations
December 2018****Pharmaceutical Chemistry III
(Advanced Organic Chemistry)****(2012 Scheme)****Time: 3 Hours****Total Marks: 100**

- Answer all Questions.
- Write equations wherever necessary.

Essays**(3x10=30)**

1. How do you prepare imidazole and pyrimidine. Give any two important reactions of each
2. Explain the mechanism of Michael addition reaction with examples
3. With an example, explain the stereochemistry of biphenyl compounds.

Short notes**(14x5=70)**

4. The structure of naphthalene and explain its resonance structures
5. The chemical reactivity of anthracene
6. The structure of phenothiazine and azepine. Show the numbering
7. How do you prepare pyrrole. Give one important reaction of pyrrole
8. How do you prepare Furan. Give its important chemical nature
9. The structure of pyrazine and oxepine. Give their synthetic routes
10. Describe catalytic hydrogenation with examples
11. Explain Clemmenson's reduction citing with example
12. Define and give example for Darzen's reaction
13. What is geometrical isomerism. Explain in detail with examples
14. Give an example for oxime and write the stereochemistry of oximes
15. What you mean by racemic modification in stereochemistry. Give an example for stereo selective synthesis
16. Oxidation with perchloric acid
17. Importance of stereochemistry in pharmaceutical sciences
