

First PharmD Degree Examinations - September 2011

PHARMACEUTICAL ORGANIC CHEMISTRY

Time: 3 hrs

Max marks : 70

- **Answer all questions**
- **Write equations and draw diagrams wherever necessary**

Essay

(2x10=20)

1. Explain the mechanism and stereochemistry involved in SN1 and SN2 reaction.
2. Write the mechanism involved in aldol condensation and Reformatsky reaction.

Write Short notes

(10x3=30)

3. Explain the Cannizaro reaction with mechanisms
4. Give an account of Williamson synthesis
5. Explain the diazotization reaction
6. Write short notes on Baeyr's strain theory.
7. Write the structure, preparation and chemical uses of vanillin.
8. Explain the effect of halogen on electrophilic aromatic substitution reaction in alkylbenzene
9. Explain Lowry-Bronsted and Lewis's theory of acids and bases with examples
10. Write short notes on acidity of phenol
11. Write the chemical formula, assay and uses of the sodium lauryl sulphate
12. Write the chemical formula, assay and uses of the glyceryl tri-nitrate

Write briefly

(10x2=20)

13. Define Isomerism. Classify with examples for each.
14. What are acid chlorides. Give any two methods for the preparation of acid chlorides.
15. Define protic and aprotic solvents with examples for each.
16. Give an example for aromatic dicarboxylic acid and write its structure and IUPAC name
17. Write Markonikoff rule
18. Write the structure and uses of citric acid.
19. Write structure and uses of dimercaprol
20. Explain ozonolysis reaction
21. Add note on hyper conjugation
22. Diel's alder reaction
