

QP CODE:104326

Reg. No:

**First Year Pharm D Degree Regular/Supplementary Examinations
February 2023
Pharmaceutical Organic Chemistry**

Time: 3 Hours

Total Marks: 70

- *Answer all questions to the point neatly and legibly • Do not leave any blank pages between answers • Indicate the question number correctly for the answer in the margin space*
- *Answer all parts of a single question together • Leave sufficient space between answers*
- *Write equation wherever necessary.*

Essay

(3x10=30)

1. Describe nucleophilic aliphatic substitution reaction (SN1 and SN2) in detail.
2. Describe in detail about electrophilic aromatic substitution reaction in benzene emphasizing general mechanism, theory of reactivity and orientation
3. State Markownikoff rule. Explain the mechanism involved in addition of hydrogen halides and peroxide effect.

Short notes:

(8x5=40)

4. Explain the Lowry Bronsted concepts of acid and bases.
5. Write the methods of preparation of cyclo alkanes.
6. Phase transfer catalysis.
7. Why nucleophilic substitution at vinylic carbon is extremely slow compared to substitution at saturated carbon.
8. Reformatsky reaction.
9. Explain about the diazotization reaction.
10. Add a note on oxidation reduction reaction with examples.
11. Write the preparation, assay and uses of salicylic acid and ethyl benzoate.
