QP Code: 222006 **Reg. No……**

Second Semester B. Pharm Degree Regular/Supplementary Examinations October 2024
Pharmaceutical Organic Chemistry I
(2017 Scheme)

Time: 3 Hours **Max. Marks: 75**

- ***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***
- ***Draw table/diagrams/flow charts wherever necessary***

Essays **(2x10=20)**

1. Explain the acidity of carboxylic acids and effects of substituents on the acidity of carboxylic acids with suitable examples.
2. a) What are the rules followed in writing the IUPAC name of Alkanes, alkenes and alkynes
   b) Give the classification of isomerism and explain structural isomerism with examples.

Short Notes **(7x5=35)**

3. Explain the stability of carbocation and write a note on the rearrangement of carbocations.
4. What is Anti-Markownikoff's rule. Explain the free radical addition reactions of alkenes.
5. What are the factors affecting SN_1 reaction
6. Explain the kinetics and order of reactivity of alkyl halides in SN_1 and SN_2 reactions.
7. Explain the nucleophilic addition reactions of aldehydes by taking two examples and add a note on electromeric effect.
8. Give the qualitative tests for carbonyl compounds.
9. Write the structure and uses of acetic acid, lactic acid and tartaric acid.

Answer Briefly **(10x2=20)**

10. Write the name of the functional group having formula: a) –OH b) -COOH
11. Give the IUPAC name for the following: a) Acetaldehyde, b) Dimethyl ether
12. What is Diel Alder reaction.
13. What are dienes. Give one example of conjugated diene.
14. Write the structure and uses of benzyl alcohol and propylene glycol.
15. Give one example of monohydric and dihydric alcohol.
16. Give the structure and uses of acetone and chloral hydrate.
17. Give the reaction to prepare cinnamic acid.
18. Compare the basicity of ammonia and methylamine. Explain.
19. Give two qualitative tests for amines

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