Reg. No…….. Name…… **23U241**

B.Sc. DEGREE END SEMESTER EXAMINATION – MARCH 2023

SEMESTER **2 -: CHEMISTRY (COMPLEMENTARY FOR PHYSICS / BOTANY / ZOOLOGY)**

COURSE CODE: 19U2CPCHE2: BASIC ORGANIC CHEMISTRY

(For Regular – 2022 Admission and Improvement/Supplementary – 2021/2020/2019 Admissions)

Time: Three Hours Maximum Marks: 60

PART A

Answer all questions. Each question carries 1 mark.

1. State Saytzeff rule.
2. An organic species which contain a carbon carrying a negative charge is called a …….
3. What is solvent extraction?
4. Draw the structures of maleic and fumaric acid.
5. What is racimisation?
6. Which is more acidic – acetic acid or chloroacetic acid.
7. What are the monomers of nylon 6,6 ?
8. Give one method of synthesis of free radicals. (1 × 8 = 8)

PART B

Answer any six questions. Each question carries 2 marks.

9. Differentiate between plastics and elastomers.
10. Write a brief note on sublimation.
11. Explain the mechanism of E1 reaction.
12. What is homolytic and heterolytic fission?
13. Define hybridisation with examples.
14. What is the effect of solvent on substitution reactions?
15. What are nucleophiles? Give two examples.
16. Draw the optical isomers of tartaric acid. (2 × 6 = 12)

PART C

Answer any* four *questions. Each question carries* 5 *marks.

17. Explain the principle of fractional distillation.
18. Write a short note on cis and trans configuration.
19. Briefly discuss about inductive effect and hyper conjugative effect.
20. Explain the synthesis and uses of various synthetic rubbers.
21. Explain Newmann and sawhorse projections with suitable example.
22. Differentiate between enantiomers and diastereomers with examples

(5 × 4 = 20)

PART D

Answer any two questions. Each question carries 10 marks.

23. Briefly describe the conformational analysis of ethane and n – butane.
24. Explain different classification of polymers.
25. Discuss S_N1 and S_N2 mechanisms with suitable examples.
26. Explain reaction mechanism of various electrophilic substitution reactions in benzene.

(10 × 2 = 20)

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