

B.Sc. DEGREE END SEMESTER EXAMINATION - MARCH/APRIL 2019
SEMESTER - 2: CHEMISTRY (COMPLEMENTARY COURSE FOR PHYSICS/BOTANY/ZOOLOGY)
COURSE: 15U2CPCHE2: BASIC ORGANIC CHEMISTRY

(Common for Regular 2018 / Supplementary/Improvement 2017/ 2016/2015 Admission)

Time: Three Hours

Maximum Marks: 60

PART A

*Answer **all** questions. Each question carries **1** mark.*

1. Naphthalene is purified by -----
2. is an example of fractional distillation.
3. Fumaric acid is ----- geometrical isomer.
4. Equimolar mixture of dextro and laevo isomer is known as
5. Give an example for a biopolymer.
6. Most stable conformation of cyclohexane is
7. Which one has higher pKa value- Chloroacetic acid or acetic acid
8. Give an example of synthetic rubber. (1 × 8 = 8)

PART B

*Answer **any six** questions. Each question carries **2** marks.*

9. How will you purify sodium chloride.
10. Staggered conformation of ethane is more stable than eclipsed why?
11. How will you distinguish maleic acid and fumaric acid?
12. What is meant by chirality?
13. Why ter-butyl chloride favours SN1 mechanism?
14. What is Markovnikov rule? Give example.
15. Write the preparation of two addition polymers.
16. What type of pollution is caused by polymers? How it can be minimized? (2 × 6 = 12)

PART C

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

17. Draw all isomers of tartaric acid.
18. Represent all conformations of n-butane and compare their stability
19. Differentiate between natural and synthetic polymers with examples.
20. Explain Saytzeff's rule with an example
21. Discuss the mechanism of chlorination of benzene.
22. The K_b values of alkyl amines are in the order methyl amine < dimethyl amine < Trimethyl amine
Explain. (5 × 4 = 20)

PART D

*Answer **any two** questions. Each question carries **10** marks*

23. Discuss the principle and working of distillation, steam distillation, distillation under reduced pressure.
24. Discuss the SN1 and SN2 reaction mechanisms and explain how the structure influences the mechanism of the reaction.
25. How polymers are classified? Discuss any three classification
26. Write a note on inductive effect, mesomeric effect and hyper conjugation (10 × 2 = 20)
