D 11821   (Pages : 2)

Name...

Reg. No....................................

THIRD SEMESTER (CUCBCSS–UG) DEGREE EXAMINATION NOVEMBER 2021

Chemistry

CHE 3C 03—ORGANIC CHEMISTRY

(2014—2018 Admissions)

Time : Three Hours   Maximum : 64 Marks

Section A

Answer **all** *the questions.*
Each question carries 1 *mark (one word).*

1. Homolytic bond fission in a reaction leads to the formation of ——————.

2. The hybridization of carbon atoms in benzene is ——————.

3. Halogens exhibits —————— inductive effect.

4. Which carbocation is more stable ? primary/ secondary/ tertiary

5. The preferred conformation of methyl cyclohexane is ——————.

6. The reagent and substrate used in Wurtz reaction are ——————.

7. Number of pi electrons of naphthalene is ——————.

8. Alkyl magnesium halides are known as ——————.

9. TNT is used as ——————.

10. The nitrogenous base that is not present in DNA is ——————.

$(10 \times 1 = 10 \text{ marks})$

Section B

Answer any **seven** *questions.*
Each question carries 2 *marks. (short answer).*

11. State isoprene rule.

12. Draw the structure of nicotine.

13. What is vulcanization ?

14. Why oils are hydrogenated ?

Turn over

15. Write *two* differences of amylose and amylopectin.

16. Draw the structure of methyl orange.

17. What is Williamsons synthesis ?

18. How Toluene is converted to TNT ?

19. Kb value increases in the order Methylamiine, Dimethylamine, Triethylamine Why ?

20. Write *two* examples of neutral amino acids.

$(7 \times 2 = 14$ marks$)$

Section C

Answer any **four** *questions.*
Each question carries 5 *marks (paragraph)*

21. How soap is prepared ?

22. Write the preparation and uses of phenopthalein.

23. Write *three* evidences for cyclic structure of glucose.

24. Write any *three* synthetic applications of Grignard reagents.

25. How will you convert ethanol to propanoic acid ?

26. Distinguish between S_N1 and S_N2 reactions.

$(4 \times 5 = 20$ marks$)$

Section D

Answer any **two** *questions.*
Each question carries 10 *marks. (Essay).*

27. Explain the primary, secondary and tertiary structure of proteins.

28. Write an essay on conformations of ethane and cyclohexane.

29. Explain the structure of benzene and aromaticity.

30. Explain the preparation of ethanol from molasses.

$(2 \times 10 = 20$ marks$)$