

20U305

(Pages: 2)

Name:

Reg.No:

THIRD SEMESTER B.Sc. DEGREE EXAMINATION, NOVEMBER 2021

(CBCSS - UG)

(Regular/Supplementary/Improvement)

CC19U CHE3 C03 - ORGANIC CHEMISTRY

(Chemistry - Complementary Course)

(2019 Admission onwards)

Time : 2.00 Hours

Maximum : 60 Marks

Credit : 2

Part A (Short answer questions)

Answer *all* questions. Each question carries 2 marks.

1. What is meant by resonance effect?
2. Draw the resonance structures of nitrobenzene.
3. Name two group showing -M effect.
4. Explain the term racemic mixture
5. Show that athracene is aromatic based on Huckel's rule.
6. How can you convert ethyl - 1 - bromide to ethyl cyanide?
7. Differentiate between rectified spirit and absolute alcohol.
8. What is meant by diazotization?
9. What are the uses of methyl orange?
10. What are essential aminoacids?
11. If one strand of DNA has a sequence ATCGTACG, what is the sequence of the complementary strand?
12. Give two uses of eucalyptus oil.

(Ceiling: 20 Marks)

Part B (Short essay questions - Paragraph)

Answer *all* questions. Each question carries 5 marks.

13. Bring out the distinguishing features of inductive effect and electromeric effect.
14. Describe conformational isomerism with regard to ethane.
15. Explain with equation how benzene can be converted to benzene sulphonic acid.
16. Explain how ethanol is manufactured from molasses.
17. How can you prepare acetic acid from methylmagnesium bromide?
18. Explain the double helical structure of DNA.
19. Comment on the structure of natural rubber. What is meant by vulcanization?

(Ceiling: 30 Marks)

Part C (Essay questions)

Answer any *one* question. The question carries 10 marks.

20. Discuss the stability of different kinds of carbanions.
21. Differentiate between configuration and conformation. Draw the conformation of ethane and cyclohexane. Explain the relative stability of conformations.

(1 × 10 = 10 Marks)
