19U305 (Pages: 2) Name: .....

Reg.No: .....

THIRD SEMESTER B.Sc. DEGREE EXAMINATION, NOVEMBER 2020

(CBCSS - UG)

CC19U CHE3 C03 - ORGANIC CHEMISTRY

(Chemistry - Complementary Course)

(2019 Admission - Regular)

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 phenol.
3. Which is weaker acid- acetic acid or chloro acetic acid? Justify your answer.
4. Give two examples for molecules exhibiting optical isomerism.
5. What are deactivating groups? Give two examples.
6. Explain Fittig reaction using a suitable example.
7. What is haloform reaction?
8. What is meant by decarboxylation?
9. How can you convert cyclohexanol to cyclohexanone?
10. Give an example for ketohexose and give its molecular formula
11. Name two kinds of secondary structure normally found among proteins.
12. What is isoprene rule?

(Ceiling: 20 Marks)

Part B (Short essay questions)

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

13. Give two example for reactions involving formation of carbocations.
14. Differentiate between geometrical isomerism and optical isomerism.

15. What is meant by Friedal -Crafts alkylation reaction? Give its mechanism.

16. Explain how ethanol is manufactured from molasses.

17. Give two methods for the decarboxylation of carboxylic acids.

18. What are nucleosides and nucleotides?

19. Give the source, structure and physiological activity of piperine.

(Ceiling: 30 Marks)

Part C (Essay questions)

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

20. Explain the acidic nature of phenol. How do substituents affect the acidity of phenol?

21. Explain how aniline can be converted into:

    (i) Benzene (ii) Bromobenzene (iii) Iodobenzene (iv) Phenylcyanide

(1 × 10 = 10 Marks)

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