

QP CODE: 19101367



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Reg No :

Name :

B.Sc DEGREE (CBCS) EXAMINATION, MAY 2019

Fourth Semester

Core Course - CH4CRT04 - ORGANIC CHEMISTRY-II

(Common for B.Sc Chemistry Model I ,B.Sc Chemistry Model II Industrial Chemistry ,B.Sc Chemistry Model III
Petrochemicals)

2017 Admission onwards

6FED4906

Maximum Marks: 60

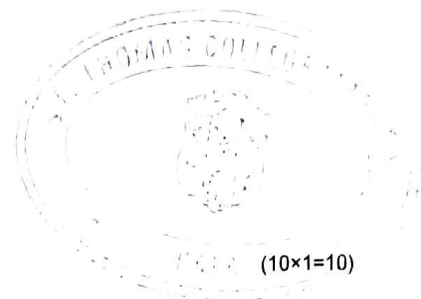
Time: 3 Hours

Part A

Answer any ten questions.

Each question carries 1 mark.

1. What is the product obtained in the reaction of ethanol and Con. H₂SO₄ at 413K ?.
2. What is the action of alkaline KMnO₄ on allyl alcohol?
3. What is a gem-diol ? Give any one example
4. Write the product obtained when phenol is treated with CCl₄ and alkali
5. Convert acetonitrile to acetaldehyde.
6. Convert benzaldehyde to Mandelic acid.
7. What is crotonaldehyde? How is it prepared?
8. Mention one of the uses of iodoform test in organic chemistry.
9. Give the product of hydrolysis of Ethyl ethanoate
10. Which is more acidic ? acetic acid or chloro acetic acid . Why?
11. What is oil of winter green? How is it formed?
12. How will you synthesise fumaric acid from malonic acid?



Part B

Answer any six questions.

Each question carries 5 marks.

13. Describe the preparation of Phenol from (i)Cumene (ii) Diazonium salt
14. What are Epoxides? Give any two preparation methods
15. Explain briefly the Ziesel method for the estimation of alkoxy group.
16. What is benzophenone? Predict the products when benzophenone reacts with
a) Zn/acetic acid b) Zn-Hg/HCl c) Zn and KOH
17. Write the mechanism and two examples of Wittig reaction.

Predict the products in the following conversions. Write down the mechanism involved in it

18. a) $\text{H}_2\text{C}=\text{CH}-\text{CH}=\text{O} + \text{CH}_3\text{NO}_2 \xrightarrow{\text{C}_2\text{H}_5\text{O}^-} ?$
b) $\text{H}_2\text{C}=\text{CH}-\text{CH}=\text{O} + \text{H}_2\text{C}(\text{COOC}_2\text{H}_5)_2 \xrightarrow{\text{C}_2\text{H}_5\text{O}^-} ?$

19. Briefly explain the reactions of acetyl chloride with ammonia and amines
20. What is phenolphthalein? How is it prepared?
21. How will you convert toluene to p-toluene sulphonyl chloride?

(6×5=30)

Part C

Answer any **two** questions.

Each question carries **10** marks.

22. Give any one preparation method and two uses of the following
a) Resorcinol b) Quinol c) nitrophenol d) picric acid
23. Explain the mechanism of reduction of
a) Carbonyl compounds by LiAlH_4 b) Wolf-Kishner reduction
c) Carbonyl compounds by Aluminium isopropoxide
24. Write the mechanism of the following
a) Perkin reaction
b) Reformatsky reaction
c) Claisen condensation
25. Suggest a method of synthesis for the following compounds from toluene
a. Chloramine T b) saccharin c) o- and p- toluene sulphonyl chloride

(2×10=)