QP CODE: 24002412

Reg No : .....

Name : .....

B.Sc DEGREE (CBCS) SPECIAL REAPPEARANCE EXAMINATIONS, MARCH 20

Fifth Semester

CORE COURSE - CH5CRT06 - ORGANIC CHEMISTRY-III

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

2021 Admission Only

E573FE87

Time: 3 Hours Max. Marks

Part A

*Answer any **ten** questions.*

*Each question carries **1** mark.*

1. Which is the reagent used in Nef-carbonyl synthesis?
2. Give the product when phenyl nitromethane is reduced with Zn dust and NH_4Cl.
3. Name the compound – $C_6H_5CH_2N(CH_3)_2$
4. $C_6H_5N_2^+BF_4^- + ? \rightarrow C_6H_5NO_2 + N_2 + NaBF_4$
5. What is gramine? Name the heterocyclic compound from which gramine prepared.
6. Draw the structure of ethylacetoacetate.
7. Mention the importance of Killiani-Fischer synthesis in carbohydrate chemistry
8. Write one example for artificial sugar and give its structure.
9. What are antibiotics? Give example
10. Draw the structure of ranitidne.
11. Name two dyes which can be applied to cotton effectively.
12. What is Zeigler Natta Catalyst?

(10×1=

Part B

*Answer any **six** questions.*

*Each question carries **5** marks.*

15. How are heterocyclic compounds classified? Give two examples for each class.

16. What are enamines? Illustrate with example, how they are useful in alkylation of carbo compounds?

17. What are reducing and non-reducing sugars? Explain the reducing property of glucose using suitable reactions.

18. What are osazones? How are they prepared?

19. Write a note on drug addiction, abuse and its remedies.

20. How are the following dyes prepared?
(a) Methyl Orange (b) Alizarin

21. (a) How are nylons named? Illusrate using examples.
(b) Write the synthesis of two commercially important nylons.

(6×5=

Part C

*Answer any **two** questions.*

*Each question carries **10** marks.*

22. (a) Explain separation of a mixture of 1°, 2° and 3° amines using Hinsberg reagent.
(b) Explain use of Quaternary amine salts as phase-transfer catalysts.

23. Discuss the electrophilic and nucleophilic substitution reactions of pyridine. Also give th molecular orbital concept regarding its structure.

24. (a) What are disaccharides? Draw the cyclic structure of (i) maltose (ii) cellobiose and mention the monosaccharide units present in it.
(b) Biiefly explain the reactions and uses of sucrose.

25. (a) Discuss the preparation and application of the synthetic rubbers:
(i)SBR
(ii)Neoprene
(b)What are conducting polymers? Explain with suitable example.

(2×10=