(6 pages) Reg. No. : .....

Code No. : 20468 E **Sub. Code : CACH 21**

B.Sc. (CBCS) DEGREE EXAMINATION, NOVEMBER 2023.

Second/Fourth Semester

Chemistry – Allied

ALLIED CHEMISTRY – II

(For those who joined in July 2021-2022 onwards)

Time : Three hours Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer

1. Which one among the following compounds is aromatic?

(a)  (b) 

(c)  (d) 

2. The Haworth Synthesis of naphthalane involves reaction between benzene and ————

(a) Succinic anhydride (b) Salicylic anhydride

(c) Maleic anhydride (d) Adipic anhydride

3. An alpha particle is also known as

(a) an electron (b) a positron

(c) a helium nucleus (d) a photon

4. What is the number of neutrons in this isotope of Uranium? $^{238}_{92}U$.

(a) 92 (b) 119

(c) 238 (d) 146

5. What is a bond between aminoacids called

(a) Ionic bond (b) Peptide bond

(c) Acidic bond (d) Hydrogen bond

6. Which of the following is the example of transport proteins?

(a) Dehydrogenase (b) Myoglobin

(c) Hemoglobin (d) Immunoglobin

7. Mixed fertilizer supply

(a) Nitrogen (b) Phosphorous

(c) Potassium (d) All the three

8. Annealing is a process of

(a) Cooling glass suddenly

(b) Cooling glass slowly

(c) Heating glass

(d) Pressing glass plates

9. Which of the following is used to cure jaundice.

(a) neem (b) keezhanalli

(c) thulasi (d) none of these

10. Aspirin is ————

(a) Phenyl salicylate (b) Ethyl salicylate

(c) Methyl salicylate (d) Acetyl salicylate

PART B — (5 × 5 = 25 marks)

Answer ALL questions, choosing either (a) or (b).

Each answer should not exceed 250 words.

11. (a) Complete the following reactions

(i) Naphthalene + $H_2/Ni \rightarrow$

(ii) Naphthalene + $O_2/V_2O_5 \rightarrow$

(iii) Anthracene + $K_2Cr_2O_7/H_2SO_4 \rightarrow$

Or

(b) Explain the preparation of Benzene.

12. (a) Write short notes on Isotopes.

Or

(b) What do you mean by Radioactive series? Explain clearly about them.

13. (a) Discuss the biological function of proteins.

Or

(b) What is aminoacids? Explain classification based on their chemical structure.

14. (a) What is LPG? Write its uses.

Or

(b) How is soap prepared?

15. (a) Give a brief account of antibiotics.

Or

(b) What is diabetes? What are the causes for diabetes.

PART C — (5 × 8 = 40 marks)

Answer ALL questions, choosing either (a) or (b).

Each answer should not exceed 600 words.

16. (a) Describe the structural elucidation of anthracene.

Or

(b) What is aromaticity? Explain Huckel's rules with examples.

17. (a) Explain the applications of Radioisotopes.

Or

(b) Write a note on

(i) n/p ratio

(ii) Mass defect

18. (a) Explain the properties of aminoacids.

Or

(b) Write a notes on

(i) Artificial sweetners

(ii) Colour reactions of proteins

19. (a) Discuss the manufacture of cement.

Or

(b) Explain the manufacture of glass.

20. (a) Write down the various air-borne diseases and explain.

Or

(b) Explain the Hereditary diseases.

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