

(6 pages)

Reg. No. :

**Code No. : 20554 E Sub. Code : SACH 21/
AACH 21**

B.Sc. (CBCS) DEGREE EXAMINATION, APRIL 2021.

Second/Fourth Semester

Chemistry — Allied

ALLIED CHEMISTRY — II

(For those who joined in July 2017 onwards)

Time : Three hours

Maximum : 75 marks

PART A — ($10 \times 1 = 10$ marks)

Answer ALL questions.

Choose the correct answer.

1. The number of π electrons in anthracene
 - (a) 6
 - (b) 10
 - (c) 14
 - (d) 18
2. Naphthalene on Nickel catalytic reduction gives
 - (a) decalin
 - (b) tetralin
 - (c) dialin
 - (d) none

3. Uranium isotope used in nuclear reactor is
- (a) U-235 (b) U-236
(c) U-237 (d) U-238
4. Emission of a β -ray produces an
- (a) isotope (b) isotone
(c) isobar (d) none
5. Which of the following is a polysaccharide?
- (a) Glucose (b) Sucrose
(c) Lactose (d) Starch
6. Proteins give purple colour when treated with
- (a) Benedicts solution
(b) Iodine solution
(c) Ninhydrin solution
(d) Biuret solution
7. _____ is the nitrogeneous fertilizer.
- (a) Urea (b) Super phosphate
(c) Muriate of potash (d) None

8. Annealing is a process of
- (a) cooling glass suddenly
 - (b) cooling glass slowly
 - (c) heating glass
 - (d) pressing glass plates
9. BCG vaccine is used to prevent
- (a) Cholera
 - (b) Jaundice
 - (c) TB
 - (d) Diphtheria
10. Diabetes is controlled by
- (a) Hepatitis B
 - (b) Insulin
 - (c) BCG
 - (d) Chloromycetin

PART B — ($5 \times 5 = 25$ marks)

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

Each answer should not exceed 250 words.

11. (a) Discuss Haworth Synthesis of naphthalene.

Or

- (b) Explain the electrophilic substitution reactions of naphthalene.

12. (a) Explain the characteristics of the following with examples.

- (i) isotopes
- (ii) isobars.

Or

- (b) Write on Radiocarbon (C-14) dating.

13. (a) Discuss the classification of carbohydrates with examples.

Or

- (b) Distinguish between DNA and RNA.

14. (a) Give any two types of glasses with uses.

Or

- (b) Write the preparation, properties and uses of Ammonium sulphate.

15. (a) Give an account of Indian Medicinal Plants.

Or

- (b) Write a note on :

- (i) Analgesics
- (ii) Antipyretics.

PART C — ($5 \times 8 = 40$ marks)

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

Each answer should not exceed 600 words.

16. (a) Discuss the properties of benzene.

Or

- (b) Explain the structural elucidation of anthracene.

17. (a) (i) Group displacement law
(ii) Radioactive series.

Or

- (b) What is nuclear fusion? Explain its applications.

18. (a) (i) Discuss the properties of aminoacids.
(ii) Write a note on artificial sweeteners.

Or

- (b) Explain the different ways of classification of proteins.

19. (a) Discuss the composition, preparation and uses of any three fuel gases.

Or

- (b) Discuss the manufacture of soap.

20. (a) Write down the various water borne diseases and explain their causes and treatment.

Or

- (b) Write about the types, causes, prevention and treatment of diabetes.
