

(6 pages)

Reg. No. :

Code No. : 30013 E Sub. Code : AACH 21

B.Sc. (CBCS) DEGREE EXAMINATION,
NOVEMBER 2024.

Second/Fourth Semester

Chemistry — Allied

ALLIED CHEMISTRY – II

(For those who joined in July 2020 only)

Time : Three hours

Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer :

- Acetylene gas passing through a red hot tube gives
 - Naphthalene
 - Benzene
 - Antracene
 - Cyclo hexane
- Naphthalene on oxidation gives
 - Phthalic anhydride
 - Phthalic acid
 - Phthalonic acid
 - 1,4 naphtha quinonone

3. The nuclear fusion of four ${}^1_1\text{H}$ gives

- ${}^2_2\text{H} + {}^1_0\text{n} + \text{energy}$
- ${}^4_2\text{He} + 2{}^1_0\text{n} + \text{energy}$
- ${}^4_2\text{He} + 5\text{MeV} + \text{energy}$
- ${}^4_2\text{He} + {}^1_0\text{n} + \text{energy}$

4. Find 'X'



- ${}^0_1\text{e}$
- ${}^1_1\text{H}$
- ${}^1_0\text{n}$
- ${}^0_{-1}\text{e}$

5. Which one is not present in RNA?

- Adenine
- Thymine
- Uracil
- Cytosine

6. Saccharin is a

- Carbohydrate
- Protein
- Enzyme
- Sweetner

7. The mixture of CO and N₂ is called as

- Producer gas
- Water gas
- Natural gas
- LPG

8. Urea is a _____ fertilizer.
 (a) Phosphatic (b) Potash
 (c) Nitrogenous (d) None
9. Drugs which reduce the body temperature are called
 (a) Analgesics (b) Antipyretics
 (c) Antimalarial (d) Anti biotics
10. Which of the following is used to cure jaundice?
 (a) Thulasi (b) Neem
 (c) Keezhanelli (d) None

PART B — (5 × 5 = 25 marks)

Answer ALL questions, choosing either (a) or (b).
 Each answer should not exceed 250 words.

11. (a) Write Haworth synthesis of Napthalene.
 Or
 (b) Predict the product of the following reactions.
 (i) Napthalene $\xrightarrow{O_3} ? \xrightarrow{H_2O} ?$
 (ii) Anthracene $\xrightarrow[H_2SO_4]{K_2Cr_2O_7} ?$

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12. (a) Explain the two methods of separating the isotopes.
 Or
 (b) Differentiate between nuclear fission and nuclear fusion.
13. (a) Write down any two colour reactions of proteins.
 Or
 (b) What (i) meant by isoelectric point (ii) explain it with suitable example.
14. (a) How is soap manufactured by mills process?
 Or
 (b) How are the following prepared?
 (i) Urea
 (ii) Triple super phosphate.
15. (a) Discuss the medicinal uses of the following
 (i) Neem
 (ii) Thulasi.
 Or
 (b) Write short notes on :
 (i) Analgesics with examples
 (ii) Antimalarials with examples.

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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 naphthalene.

Or

- (b) How is anthracene prepared by the following method?

- (i) Haworth synthesis
(ii) Diels – Alder reaction.

17. (a) Discuss :

- (i) Isotopes with example
(ii) Isobars with example
(iii) Isotopes with example.

Or

- (b) Describe the application of radio isotopes.

18. (a) Classify carbohydrates with suitable example.

Or

- (b) Explain the structure of DNA and RNA.

19. (a) How is Portland cement manufactured?

Or

- (b) Explain the method of manufacture of glass.

20. (a) Discuss about the waterborne diseases.

Or

- (b) Write notes on the following :

- (i) Antipyretis
(ii) Antibiotics
(iii) Sulpha drugs.
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