

(6 pages)

Reg. No. :

Code No. : 30496 E Sub. Code : CECH 54

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

Fifth Semester

Chemistry — Major Elective

APPLIED CHEMISTRY

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

Time : Three hours

Maximum : 75 marks

PART A — ($10 \times 1 = 10$ marks)

Answer ALL questions.

Choose the correct answer :

1. Domestic cooking gas consists of _____
- (a) Methane and ethane
(b) C_2H_4 and Co
(c) C_2H_2 and N_2
(d) Liquidified butane and isobutane

2. Gaseous fuel with least calorific value is _____.
- (a) coal gas (b) water gas
(c) producer gas (d) natural gas
3. Crooke's glass contains _____.
- (a) Silica (b) Cerium oxide
(c) Cryolite (d) Sodium carbonate
4. Latex paint is _____.
- (a) non toxic (b) inflammable
(c) short life (d) odour
5. Chemicals used to kill weeds are called _____.
- (a) insecticide (b) fungicide
(c) herbicide (d) pesticide
6. Which one of the following adhesives can be made plastic by recycling?
- (a) Thermo setting (b) Rubber based
(c) Thermo plastics (d) Animal based
7. Urea is Manufactured from _____.
- (a) NH_3 (b) NH_2OH
(c) NH_4Cl (d) NH_2NH_2



8. Sodium steryl sulphate is an example of _____

- (a) non-ionic detergent
- (b) cationic detergent
- (c) anionic detergent
- (d) amphoteric detergent

9. In the soap manufacture, common salt is added to _____

- (a) increase texture
- (b) precipitate soap
- (c) increase the weight of the soap
- (d) impart fragrance to soap

10. Red phosphorous is used in _____.

- (a) Match head (b) TNT
- (c) Gun powder (d) Rubbing surface

PART B — (5 × 5 = 25 marks)

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

Each answer should not exceed 250 words.

11. (a) What are the characteristic of good fuel?

Or

(b) Write a short note on "combustion".

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12. (a) Explain grease and solid lubricants.

Or

(b) What are paints? How are they classified?

13. (a) Discuss the classification of pesticides.

Or

(b) Write the manufacture and uses of (i) DDT
(ii) BHC.

14. (a) Explain the process of manufacture of soya
bean oil.

Or

(b) Write any five differences between soaps and
detergents.

15. (a) Mention the applications of ceramics.

Or

(b) How will you prepare the following
explosives.

- (i) NTP
- (ii) Gun powder
- (iii) RDX.

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[P.T.O.]



PART C — (5 × 8 = 40 marks)

Answer ALL questions choosing either (a) or (b).
Each answer should not exceed 600 words.

16. (a) Give the preparation and specific uses of

- (i) Producer gas
- (ii) Water gas
- (iii) LPG
- (iv) Gobar gas.

Or

- (b) Define petroleum. And explain its chemical composition.

17. (a) Define adhesive. Explain its classification.

Or

- (b) Discuss synthetic resin, adhesives and rubber based adhesives.

18. (a) Write notes on :

- (i) NPK fertilizers
- (ii) Fungicides.

Or

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- (b) Explain the preparation and uses of

- (i) Bordeaux mixture
- (ii) Lime sulphur.

19. (a) Explain synthetic detergents and their application using cleaning action.

Or

- (b) Define oils and fats. What are the main constituents of these?

20. (a) Discuss the composition of glass.

Or

- (b) Discuss the manufacture of safety matches.

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