

(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 × 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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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
- Producer gas
 - Water gas
 - LPG
 - 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 :

- NPK fertilizers
- Fungicides.

Or

- (b) Explain the preparation and uses of
- Bordeaux mixture
 - 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.