

(6 pages)

Reg. No. :

Code No. : 20336 E Sub. Code : CNCH 42

U.G. (CBCS) DEGREE EXAMINATION, APRIL 2025.

Fourth Semester

Chemistry

Non Major Elective – CHEMISTRY IN EVERYDAY
LIFE

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

Time : Three hours

Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer :

1. What is the primary function of additives in cosmetics?
(a) Enhance fragrance (b) Increase shelf life
(c) Improve texture (d) All of the above

2. Which cosmetic product is primarily used for sun protection?
(a) Cleansing cream (b) Moisturizing soap
(c) Sunscreen lotion (d) Lipstick
3. What is the basic chemical composition of most soaps?
(a) Sodium hydroxide
(b) Potassium hydroxide
(c) Sodium or potassium salts of fatty acids
(d) Hydrochloric acid
4. What is the main purpose of detergents?
(a) Softening water
(b) Reducing surface tension
(c) Neutralizing acidity
(d) Enhancing fragrance
5. Which type of fatty acids are predominantly found in butter and cooking oils?
(a) Saturated fatty acids
(b) Unsaturated fatty acids
(c) Trans fatty acids
(d) Polyunsaturated fatty acids

6. What role do antioxidants play in cooking oils?
- (a) They enhance the flavor of oils
 - (b) They prevent oxidation and rancidity
 - (c) They increase the smoke point of oils
 - (d) They improve the texture of oils
7. What is the primary purpose of fertilizers in plant nutrition?
- (a) Providing structural support to plants
 - (b) Enhancing water retention in soil
 - (c) Supplying essential nutrients to plants
 - (d) Preventing soil erosion
8. What is the primary role of composting in agriculture?
- (a) To increase soil pH
 - (b) To reduce soil erosion
 - (c) To improve soil fertility
 - (d) To control weed growth
9. Which of the following is a natural fiber derived from the silkworm?
- (a) Polyester
 - (b) Cotton
 - (c) Wool
 - (d) Silk

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10. What is the function of dyes in the textile industry?
- (a) Strengthening fabrics
 - (b) Increasing fabric flexibility
 - (c) Adding color to fabrics
 - (d) Enhancing fabric durability

PART B — (5 × 5 = 25 marks)

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

11. (a) Explain the composition and function of shampoos.

Or

- (b) Describe the function of face powder and compact powder in cosmetics.

12. (a) Compare and contrast toilet soaps and bathing bars

Or

- (b) Explain the concept of detergent biodegradability and its importance for environmental sustainability.

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13. (a) Describe the difference between saturated and unsaturated fatty acids found in butter and cooking oils.

Or

(b) Discuss the principles of microwave cooking.

14. (a) Write a note on composting and list out the advantages of it.

Or

(b) Write a note on insecticides.

15. (a) Write a note on fibres and yarns.

Or

(b) Write a note on carpet materials.

PART C — (5 × 8 = 40 marks)

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

Each answer should not exceed 600 words.

16. (a) Discuss the importance of sunscreen lotion in skincare and explain how it protects the skin from UV radiation.

Or

(b) Explain the role of additives in cosmetics and provide examples of commonly used additives.

17. (a) Describe the basic chemical composition of soaps and explain how they function as surfactants.

Or

(b) Explain the significance of acidity and alkalinity in detergent activity.

18. (a) Discuss the role of antioxidants in cooking oils, including how they prevent oxidation and rancidity and the types of antioxidants commonly used.

Or

(b) Explain how cooking can affect the stability of nutrients in foods.

19. (a) Discuss the role of fertilizers in plant nutrition.

Or

(b) Describe the nutrient deficiencies in plants and the diseases they cause.

20. (a) Write a note on dyes and dyeing.

Or

(b) Describe the tanning process in leather production.