

**LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034**



**B.Sc. DEGREE EXAMINATION – CHEMISTRY**

**FOURTH SEMESTER – APRIL 2022**

**UCH 4601 – CHEMISTRY OF FOOD AND CONSUMER PRODUCTS**

Date: 23-06-2022

Dept. No.

Max. : 100 Marks

Time: 09:00 AM - 12:00 NOON

**Part-A**

*Answer ALL questions.*

**(10 × 2 = 20)**

1. List the FDA approved natural sweeteners.
2. Draw the Haworth structure of glucose.
3. How are fats stored in the human body?
4. What are provitamins? Cite an example.
5. Define the term food additives.
6. What is nitrogen flushing?
7. What are adulterants? Mention two examples.
8. Name any two food borne illness caused by bacteria and virus.
9. What is the composition of lipsticks?
10. Define the term antiperspirants with an example.

**Part-B**

*Answer any EIGHT questions.*

**(8 × 5 = 40)**

11. Draw and explain the structure of sucrose.
12. Explain the steps involved in the oxidation of glucose.
13. List and explain the FDA approved artificial sweeteners.
14. Explain the types of rancidity of fat. How can they be prevented?
15. Discuss the refining and hydrogenation of oils.
16. Illustrate the use of MSG in food industry. Mention its advantages and disadvantages.
17. Describe the role of antioxidants in food industries.
18. Discuss the food adulterants present in vegetable oils, milk, milk products, pulses and beverages.
19. Give the detailed explanation of cathodic and anodic detergents.
20. What is saponification? Write the difference between soaps and detergents.
21. Discuss in detail the packing and labelling of food products.
22. Write the composition of the following.  
(i) Eyebrow pencil (ii) Skin bleaching agent (iii) Face Cream

### Part-C

*Answer any FOUR questions.*

**(4 × 10 = 40)**

- 23a. Explain the enzymatic browning in fruits and vegetables.
- b. How is the nutritive value of proteins of legumes enhanced by cooking? (5+5)
- 24a. Explain the functions of fat.
- b. Describe the role of MUFA and PUFA in preventing heart diseases. (5+5)
- 25a. Discuss pasteurization, UHT and ESL processes and their significance in milk processing. (5+5)
- b. Explain the impact of drinking soda on urological health and kidney stone formation.
- 26a. Discuss in detail the food deterioration and suggest some prevention methods.
- b. Explain the different types of shampoos and their functions. (5+5)
- 27a. Write short note on Hair-dye and conditioner. (5+5)
- b. Describe the role of any three skin lightening materials to protect from sunlight.
28. Discuss in detail the role of the following quality control agents.
- (i) PFA (ii) FPO (iii) FDA (iv) AGMARK

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