

# **KAMARAJ COLLEGE (Autonomous)**

Accredited with A+ Grade by NAAC

(Affiliated to Manonmaniam Sundaranar University, Tirunelveli)

THOOTHUKUDI - 628 003

**(5 Pages)**

**Reg. No: .....**

**Question. Code No : 2400032**

**Sub Code : 24USCH11**

**UG Degree - End Semester Examinations , November 2024**

**First Semester**

**B.Sc. Chemistry**

**SEC I - FOOD CHEMISTRY**

**(For those who joined in July 2024 onwards)**

**Time : 3 Hours**

**Maximum : 75 Marks**

**PART A - (10 × 1 = 10 Marks)**

**Answer ALL Questions**

**Choose the correct answer :**

1. Protein such as ----- controls the glucose level in the blood.  
(a) Keratin (b) Collagens  
(c) Insulin (d) haemoglobin
2. The international adulterant added to milk is  
(a) starch (b) dextrans  
(c) water (d) All the above.

3. Chemicals which are used to kill weeds are called
  - (a) insecticides
  - (b) fungicides
  - (c) herbicides
  - (d) acaricides
4. Organic pesticide that contain Phosphorous is
  - (a) DDT
  - (b) BHC
  - (c) Malathion
  - (d) Dimethyl phthalate
5. Vanillin is used in ice cream as
  - (a) antioxidant
  - (b) flavour
  - (c) sweetner
  - (d) preservative
6. What is the trade name for the food additive E621?
  - (a) Monosodium glutamate
  - (b) Sodium citrate
  - (c) Ascorbic acid
  - (d) Potassium sorbate
7. The enzyme used in fruit juice industry is
  - (a) Pectin
  - (b) gelatin
  - (c) fixin
  - (d) bromalin
8. What is the process called that converts sugar into alcohol in wine making?
  - (a) Fermentation
  - (b) Distillation
  - (c) Carbonation
  - (d) Pasteurisation
9. Alkaline hydrolysis of oils or fats is called
  - (a) Saponification value
  - (b) Iodine value
  - (c) RM value
  - (d) Rancidification value
10. The following one is an example of MUFA
  - (a) Sunflower oil
  - (b) Soya bean oil
  - (c) Olive oil
  - (d) Flax seed oil

**PART B - (5X5=25 Marks)**

**Answer ALL Questions choosing either (a) or (b).**

**Answer should not Exceed 250 words.**

11. (a) Define food. Explain its main types.

**(OR)**

(b) List out the advantages and disadvantages of lipids as food.

12. (a) Detail the brief notes of food poisons and discuss natural poisons by alkaloids.

**(OR)**

(b) Summarize the pesticide poisons especially by DDT and BHC.

13. (a) Define food additive. Explain food colourants with examples.

**(OR)**

(b) Illustrate the following: i) Leavening agent ii) Vinegar

14. (a) Outline the definition and classification of beverages. Give four examples. Write their important types.

**(OR)**

(b) Lay out the definition of carbonation and explain the methods of carbonation.

15. (a) What are fats and oils? Write their main sources.

**(OR)**

(b) Define RM Value. How will you determine it? Mention its Significance.

**PART- C (5 × 8 = 40 Marks)**

**Answer ALL Questions choosing either (a) or (b).**

**Answer should not exceed 500 words.**

16. (a) Define adulterants. Explain their types. Give one common adulterant used in milk, butter and Ghee.

**(OR)**

- (b) Write a note on “detection of adulterated foods by simple analytical techniques”.

17. (a) Interpret the chemical poisons by organ pesticides and organ chloro pesticides.

**(OR)**

- (b) Discuss about first aid for poison consumed victims.

18. (a) Explain food flavours of the kind esters, aldehydes and heterocyclic compounds.

**(OR)**

- (b) What are Preservatives in food? Explain their role in food preservation.

19. (a) What are alcoholic beverages? Explain how alcoholic beverages can be carbonated.

**(OR)**

- (b) Explain the disease of liver and social problems due to alcoholism.

20. (a) What are the main sources of oil? How will you manufacture refined Sunflower oil?

**(OR)**

(b) Determine the following and write their significances. i) Iodine value ii) Saponification value.