Q.1. (a) Define Food Science.  
(b) Enumerate its importance for catering establishments. 

(3+7=10)

Q.2. (a) Classify carbohydrates.  
(b) Describe any five functions of carbohydrates in food preparation. 

(5+5=10)

OR

Explain the process of gelatinization with the help of an illustration and state the factors affecting it. 

(10)

Q.3. (a) Describe three types of dispersions.  
(b) Explain some colloids that can be formed during food preparation. 

(5+5=10)

OR

Define the role of emulsifying agents in food and explain the characteristics of emulsions. 

(10)

Q.4. Illustrate the basic structure of proteins. State the properties of proteins that are useful in various food preparations. 

(5+5=10)

Q.5. What is the importance of antioxidants in food? Explain any two types of spoilage conditions seen in fats and list some preventive measures. 

(3+7=10)
Q.6. How is the proximate analysis of food constituents conducted in the food industry? (10)

OR

Define sensory assessment of food quality. Draw a standard format of a score card used for sensory evaluation of food. (3+7=10)

Q.7. Why is the demand for food processing greatly increasing? Explain the types of processing methods by application of heat. (3+7=10)

OR

Explain the science behind the detection of flavour by the five sensory organs of the body. (10)

Q.8. List at least two differences:
   (a) Winterisation and Homogenization
   (b) Microwave and Irradiation
   (c) CAP and MAP
   (d) Leavening and shortening agent
   (e) Natural and synthetic emulsifiers (5x2=10)

Q.9. Answer in brief:
   (a) Flavour of tea
   (b) Fermentation
   (c) Taste panel
   (d) Refining of fats
   (e) Syneresis (5x2=10)

Q.10. Fill in the blanks:
   (a) __________ is the enzyme responsible for undesirable browning in food (phenol oxidase, amylase, papain).
   (b) Cream is an example of __________ (aerosol, emulsion, solid foam).
   (c) Masticometer is a device used to measure the __________ of a product (Chewiness, flow, colour).
   (d) A processing technique applying heat which kills only the disease causing micro-organism is __________ (sterilization, pasteurization, drying).
   (e) A flavour component in wine which contributes to the mouth feel and colour and breaks down during aging is __________ (nicotine, caffeine, tannin). (5x2=10)

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