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Question Paper Code: 99904

B.E./B.Tech. DEGREE EXAMINATION, MAY 2022

Elective

Chemical Engineering

19UCH904 – Food Science & Technology

(Use of Steam table and Psychrometry chart is permitted)

(Regulations 2015)

Duration: Three hours

Maximum: 100 Marks

PART A - (10 x 1 = 10 Marks)

- Choose the meat tendering protease enzyme from the given series CO1- R
(a) Papain (b) Casein (c) Melanin (d) Betalaine
- Choose the protein from amino acid series CO1- R
(a) Collagen (b) Cysteine (c) Proline (d) Alanine
- Which of the following is not a thermal property in foods? CO1- R
(a) Surface heat transfer coefficient (b) Thermal diffusivity
(c) Specific volume (d) Entropy
- Which law governs the boiling point elevation in evaporators? CO1- R
(a) Raoult's law (b) Boyle's law (c) Charles's law (d) Duhring's law
- What is alternate name for freeze drying? CO1- U
(a) Lyophilization (b) Cold pasteurization (c) Irradiation (d) Liposuction
- Which of the following is used to pack fried snack foods? CO1- U
(a) LDPE (b) PET (c) PVC (d) PS
- Rheology of food in the food processing industry is how the food is affected when ----- is applied CO1- U
(a) Pressure (b) Butter (c) None of the above (d) All of the above
- Food processing in India is concentrated in which sector, maximum? CO1- U
(a) Organized sector (b) Unorganized sector (c) Small scale (d) None

9. Which of the following is a performance parameter for the food industry? CO1- U
 (a) Hygiene (b) Labor used (c) Hygiene & Labor used (d) None
10. Spreading bacteria to clean food from contaminated work surfaces, CO5- R
 hands, utensils, or food is called
 (a) Botulism (b) Cross-contamination (c) Hygiene (d) Food-borne illness

PART – B (5x 2= 10 Marks)

11. What are anti caking agents and surface active agents? CO1- U
12. What are the types of mixer and agitators? CO1- U
13. Explain D value CO1- U
14. Define pasteurization CO1- U
15. Define quality control in food CO1- U

PART C - (5 x 16 = 80 Marks)

16. (a) Explain briefly about food sorting, cleaning and grading CO1 -U (20)
 Or
 (b) Briefly discuss the food constituents – Carbohydrates and CO1- U (20)
 Preservatives
17. (a) Write about spray driers and drum driers CO1- U (20)
 Or
 (b) Write about heat transfer phenomenon and the equations involved CO1- U (20)
 in food processing
18. (a) Elaborate the various low temperature food preservation methods. CO1- U (20)
 Or
 (b) Discuss about newer trends in packaging of solid & liquid foods CO1- U (20)
 and food storage technology
19. (a) Mention the types, sources and applications of microbial CO1- U (20)
 polysaccharides –bacterial & yeast.
 Or
 (b) Explain the amino acid fermentation of glutamate. Also describe CO1- U (20)
 the microbes involved for its production
20. (a) Expand and elaborate the HACCP in handling and storage of CO1- U (20)
 meat in restaurants
 Or
 (b) Describe the quality control in food industry, maintenance of food CO1- U (20)
 safety and quality assurance

