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**Question Paper Code: 99A09**

B.E. / B.Tech. DEGREE EXAMINATION, NOV 2023

Elective

Agriculture Engineering

19UAG909- Design Of Food Processing Equipment

(Regulation 2019)

Duration: Three hours

Maximum: 100 Marks

Answer ALL Questions

PART A - (10 x 1 = 10 Marks)

1. Which of the following comes under grain processing in India? CO1- R  
(a) oil seed processing (b) wheat processing  
(c) oil seed and wheat processing (d) None of the mentioned
2. Food processing in India is concentrated in which sector, maximum? CO1- U  
(a) organized sector (b) unorganized sector  
(c) small scale (d) none of the mentioned
3. Which of the following comes under grain processing in india? In drying process, final product is in the form of..... CO2- R  
(a) slurry (b) solution (c) solid (d) solvent concentration
4. The major ingredient of sweetened soft drink is..... CO1- U  
(a) carbonated water (b) hydrochloric acid (c) phosphoric acid (d) caffeine
5. Which of the following products is a processed form of rice.....? CO3- App  
(a) suji (b) flakes (c) bread (d) concentrated
6. Alisha challenged her friends that one special vitamin would not be affected when she boils milk. Which vitamin is it? CO1- U  
(a) Vitamin C (b) Vitamin D (c) Vitamin B (d) None of the mentioned
7. Which of the following operation reduces the dietary fiber content in cereals? CO1- U  
(a) Drying (b) Retro gradation (c) Grinding (d) Milling

8. What is the temperature of pasteurization for meat? CO1- U  
 (a) 73°C (b) 89°C (c) 63°C (d) 65°C
9. What gas is used for gas stunning in meat processing? CO1- R  
 (a) Argon (b) Helium (c) Carbon dioxide (d) Ammonia
10. Which one type of emulsion is milk? CO1- R  
 (a) Oil in water (b) Water in oil (c) Water in water (d) Oil in oil

PART – B (5 x 2= 10 Marks)

11. List out the organoleptic properties of food? CO1- R
12. List the factors to be considered for the success or failure of a packaging system. CO1- U
13. Detail the various steps involved in Instant Coffee preparation. CO1- R
14. Classify foods based on their perishability. CO1- U
15. What are the various types of trimming used in food processing industry? CO1- U

PART – C (5 x 16= 80 Marks)

16. (a) Explain the detail about the fluidized bed dryer with neat a sketch, advantage and disadvantage? CO1- U (16)  
 Or  
 (b) Explain the detail about the spray dryers with neat a sketch, advantage and disadvantage? CO1- U (16)
17. (a) Explain the detail about the cyclone separator with neat a sketch, advantage and disadvantage? CO1- U (16)  
 Or  
 (b) Describe the detail about the Inclined belt separator with neat a sketch, advantage and disadvantage? CO2- R (16)
18. (a) Describe the process involved in LSU dryer with a neat sketch, advantage and disadvantage? CO1- U (16)  
 Or  
 (b) Explain the process involved in paddy thresher and components with neat a sketch, advantage and disadvantage? CO1- U (16)
19. (a) Describe the process in working of maize Sheller and groundnut decorticator with advantage and disadvantage? CO1- U (16)  
 Or

- (b) Describe the process involved in wheat milling with advantage and disadvantage? CO2- App (16)
20. (a) Explain in detail the processing of any fruits / vegetables / food product. CO3- App (16)
- Or
- (b) Describe the detail about the scope and importance of material handling? CO3- App (16)

