

U.G. 6th Semester Examination - 2021**FOOD & NUTRITION****[HONOURS]****Discipline Specific Elective (DSE)****Course Code : F&N-H-DSE-T-4A**

Full Marks : 40

Time : $2\frac{1}{2}$ Hours*The figures in the right-hand margin indicate marks.**Candidates are required to give their answers in their own words as far as practicable.*1. Answer any **five** of the following questions: $2 \times 5 = 10$

- a) What is shelf life?
- b) What is the significance of blanching during preservation?
- c) Why is water activity an important factor in food spoilage?
- d) What are the common sources of contamination of milk and milk products?
- e) What is slow freezing?
- f) What are fluidized bed dryers?
- g) What are the types of driers in the food industry?
- h) Define Adsorption isotherm.

2. Answer any **two** questions: $5 \times 2 = 10$

- a) What are the pros and cons of using ionizing radiations in food preservation? What is the classification of food according to perishability? $2\frac{1}{2} + 2\frac{1}{2} = 5$

- b) Mention the principle of freezing. What are freezer burns? How can these be overcome?

 $2 + 1 + 2 = 5$

- c) What are the different types of freezing processes? What is Pasteurization? $3 + 2 = 5$

- d) How do the microorganisms act in spoilage of cereal and cereal products? 5

3. Answer any **two** questions : $10 \times 2 = 20$

- a) Discuss the spoilage of the following food items:

Green leafy vegetables, Fish

- b) Differentiate between commercial sterilization and cold sterilization. What are the steps of commercial sterilization? How can it be carried out at the household level? $3 + 4 + 3 = 10$

- c) Why is moist heat method more effective for sterilization as compared to dry heat method? What are the principles of sterilization by autoclave? Mention the mechanism of action

and the precautions that need to be taken.

“Pasteurized milk is not sterile milk”- Explain.

$$2+2+2+2+2=10$$

d) Write short notes on (any **two**): $5 \times 2 = 10$

i) Lyophilization

ii) Alkaline ash diet

iii) Canning

iv) Rigor mortis
