## 2023

Food Storage and Packaging

Full Marks: 100

Time: Three hours

## The figures in the margin indicate full marks for the questions.

Answer any five questions.

| 1. | a)  | Why food storage and packaging is required? Write principal causes of         | , |
|----|-----|---|---|
|    |     | food spoilage.  | 5+5=10                                  |
|    |     | food spoilage.  |   |
|    | b)  | Match Column A with Column B  | 10                                      |
|    | '   |   | 10                                      |
|    |     | Column A Column B   |   |
|    |     | MAP Packaging of carbonated soft drink  |   |
|    |     | (MAP+Low temperature+ Porous wet-strength paper                               |   |
|    |     | Low aw+ bacteriocin )   |   |
|    |     | PET Hurdle Technology   |   |
|    |     | Vacuum packaging Packaging of horticulture produce                            |   |
|    |     | Tea bag packaging Meat, cheese etc.   |   |
| 2. | (a) | What is shelf life of food?   |   |
|    | u)  | what is shell life of 100d?   | 5+10+5=20                               |
|    |     | Write the physical, chemical and biological factors controlling shelf life of |   |
|    |     | food.   |   |
|    |     | Write name of the following packaging materials:                              |   |
|    |     | LDPE  |   |
|    |     | HDPE  |   |
|    |     | PP  |   |
|    |     | HIPS  |   |
|    |     | PET   |   |
|    |     |   |   |
|    |     |   |   |

| 3  | a) | What is MAP?   |    |
|----|----|--|----|
| -  | b) | Moutin 1   | 5  |
|    |    | Mention advantages & disadvantages of MAP. Also mention the application of MAP.  | 7  |
|    | c) | How lipid & photo oxidation (rancidity), moisture gain/loss, aseptic condition and improved seal ability are maintained by proper packaging? | 8  |
| 4. | a) | Write about packaging of dairy product UHT milk, yogurt, butter, cheese, milk powder   | 20 |
| 5  | a) | Write about packaging of beverages coffee, tea, fruit juice, carbonated soft drink, beer   | 20 |
| 6. | a) | Write about packaging of grains, breakfast cereals, pasta, confectionary items (sugar candy, chocolate, sweets etc.).                        | 20 |
| 7. | a) | Write about packaging of bread, biscuit, cookies, cracker, snack food (fried, extruded and puffed snacks)                                    | 20 |

