

Seat No. : \_\_\_\_\_

# MU-128

March-2019

B.Sc., Sem.-II

## 103 : Health Hygiene (Food and Nutrition)

Time : 2:30 Hours]

[Max. Marks : 70

1. (A) Discuss daily nutritional requirement and give importance of essential amino acids. 14
- OR**
- (1) Define malnutrition. Describe diseased condition arising by Vitamin B3 deficiency. 7
- (2) What is BMR ? Discuss its calculation and importance. 7
- (B) Answer the following in brief : (Any **Four**) 4
- (1) When protein is regarded as biologically capable ?
- (2) Write any two examples of compound lipid.
- (3) Why supply for water soluble vitamins is needed regularly ?
- (4) What is daily dietary requirement for Sodium ?
- (5) Write the sources of retinol.
- (6) Osteoporosis caused due to deficiency of \_\_\_\_\_
2. (A) Discuss the spoilage of milk and vegetables describing its microflora. 14
- OR**
- (1) Explain Pasteurization and Pascalization. 7
- (2) Write detailed note on traditional techniques of food preservation. 7
- (B) Answer the following in brief : (Any **Four**) 4
- (1) Write the factors affecting microbial activity in food.
- (2) Cereals are not subjected to spoilage if stored at low moisture condition. (True/False)
- (3) Why does meat spoil quickly ?
- (4) Write the principle of bio preservation.
- (5) Preservation technique reducing the amount of O<sub>2</sub> from packing is called \_\_\_\_\_
- (6) Which ionizing radiation is used for food preservation ?

3. (A) What is food poisoning ? Discuss various sources of food contamination. **14**

**OR**

(1) Write detailed note on bacterial endotoxins. **7**

(2) Explain sources and symptoms of food poisoning caused by *Vibrio*. **7**

(B) Answer the following in brief : (Any **Three**) **3**

(1) Which potent Toxin is produced by *Clostridium* species ?

(2) Aflatoxin B1 and B2 produce Green fluorescence. (True/False)

(3) Define food intoxication.

(4) Name two bacterial species producing exotoxin.

(5) What are the sources of Ergot alkaloids ?

4. (A) What is bacterial enumeration ? List methods for that and describe MPN in detail. **14**

**OR**

(1) Explain phage typing and serotyping. **7**

(2) Describe ELISA technique for detection of bacteria. **7**

(B) Answer the following in brief : (Any **Three**) **3**

(1) Quicker decolourization in MBRT indicates inferior quality of milk (True/False)

(2) ATP is quantified by light produced through reaction with \_\_\_\_\_ enzyme.

(3) Write the principle of nucleic acid hybridization for detection of microorganisms.

(4) Name the material adulterated with turmeric powder.

(5) Write the chemical method used to detect starch adulteration in milk products.

\_\_\_\_\_