

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.
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