

Roll No.

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Total No. of Pages : 02

Total No. of Questions : 18

B.Tech. (Food Technology) (Sem.-3)

INTRODUCTION TO BIOLOGY AND MICROBIOLOGY

Subject Code : BTFT-211-19

M.Code : 78728

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt any FOUR questions.
3. SECTION-C contains THREE questions carrying TEN marks each and students have to attempt any TWO questions.

SECTION-A**Write briefly :**

- 1) What is the difference between Meiosis and mitosis?
- 2) What are the functions of Nucleus and Nucleolus?
- 3) What do you understand by Nitrogen mineralization?
- 4) Name the microorganism involved in curd, yoghurt and cheese.
- 5) What is the role of microorganisms in the pest control?
- 6) What kind of foods spoiled by the yeast and molds?
- 7) What kind of microorganisms are associated with soil fertility?
- 8) Enlist the various factors affecting the growth of microorganism.
- 9) What is the difference between beta oxidation of saturated and unsaturated fatty acids?
- 10) Differentiate between the macro and micro nutrients. What are the sources of micro nutrients?

SECTION-B

- 11) What do you understand by DNA replication and protein synthesis?
- 12) What is the difference among the osmosis, active transport endocytosis, and exocytosis?
- 13) Write down the various classes of enzymes. Differentiate between oxidoreductases and isomerases with examples.
- 14) What is the difference in food borne infections and intoxication?
- 15) Write about the four distinct phases of the growth curve.

SECTION-C

- 16) Explain in detail the process of Nitrogen Cycle with suitable diagram.
- 17) a) Write down the existence, transmission and symptoms of *Clostridium botulinum* and *Bacillus Cereus* Foodborne Intoxication.
b) Write down a short note of microbiology of water.
- 18) Explain in detail the process of glycolysis and Citric Acid Cycle.

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.