



MAJ-003-001525

Seat No. _____

B. Sc. (Sem. V) (CBCS) Examination

October / November – 2016

Microbiology : MB - 501

(Applied Microbiology)

Faculty Code : 003

Subject Code : 001525

Time : $2\frac{1}{2}$ Hours]

[Total Marks : 70

- Instructions :** (1) All questions are compulsory.
(2) Draw figure wherever required.
(3) The right side number indicates marks of the question.

1 Answer following questions in short : 20

(1) Fill in the blank :

The region where the soil and roots make contact in soil, is designated as the _____.

(2) Which organisms are responsible for Nitrification ?

(3) What is the product of Proteolysis in soil ?

(4) Give two examples of Denitrifying bacteria.

(5) Give two examples of Functional foods.

(6) What is Rancidity ?

(7) Write two methods of Preservation of food.

(8) Write two microorganism which are responsible for the spoilage of food.

(9) Define Pasteurization of milk.

(10) Name two test methods to check the quality of milk.

(11) Which bacteria are used for the production of Bulgarian milk ?

(12) Write full form of MPN, what is its use ?

(13) Name any two methods for purification of water.

(14) Which are the examples of Natural Waters ?

- (15) Write two examples of Fermented Milks.
- (16) Fill in the blank :
 Many species of marine bacteria characteristically grow while attached to soil surface and are called _____.
- (17) Give two examples of organo phosphate pesticides.
- (18) Define “Biomagnification of Pesticide”.
- (19) Give two examples of air pollutants.
- (20) Give two examples of water pollutants.

- 2** (a) Write answer of any three from following six : **6**
- (1) What is soil ?
 - (2) Define : Denitrification
 - (3) Explain : High temperature; as food preservation method.
 - (4) What is Activated Sludge Process ?
 - (5) What is Acidophilus milk ?
 - (6) What is Bioleaching ?
- (b) Write answer of any three from followings six : **9**
- (1) What is Commensalism ?
 - (2) What is SCP ?
 - (3) What is oxidation ponds ?
 - (4) Which are the major sources of bacterial contamination of milk ?
 - (5) What is Bioplastic ?
 - (6) What is Grading of milk ?
- (c) Write short notes : (any two) **10**
- (1) Physical and chemical properties of soil.
 - (2) Fermented foods.
 - (3) Milk : as medium
 - (4) Waste water treatment
 - (5) Bioremediation.
- 3** (a) Write answer of any three from following six : **6**
- (1) Write example of non-symbiotic nitrogen fixers.
 - (2) What is food intoxication ?
 - (3) What is starter culture ?

- (4) What is Aquatic Environment ?
 - (5) What is MEOR ?
 - (6) Define : Indicator organisms.
- (b) Write answer of any three from following six : **9**
- (1) How microbiological examination of food is carried out ?
 - (2) Which are normal flora of milk ?
 - (3) How microbial degradation of organic content in sewage is carried out ?
 - (4) What is Winogradsky column ?
 - (5) Explain : Cellulose decomposition.
 - (6) What is Air Pollution ?
- (c) Write short notes on : (any two) **10**
- (1) Carbon cycle
 - (2) AGMark
 - (3) Spoilage of milk and milk products.
 - (4) Solid Waste Management
 - (5) Biotechnology : as interdisciplinary science.
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