H-003-001525 Seat No. _____

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

May / June – 2017

Microbiology : MB-501

(Applied Microbiology)

Faculty Code : 003
Subject Code : 001525

Time : $2\frac{1}{2}$ Hours] [Total Marks : **70**

Instructions : (1) All quesitons are compulsory.
(2) Draw neat diagram wherever is required.
(3) Figures on right indicate marks.

1 Answer the following : **20**

(1) Define: Weathering of Rocks.

(2) What is Humus?

(3) What is Water Holding capacity of soil?

(4) What is Commensalism?

(5) Define: Bioburden of food.

(6) What is Appertization?

(7) Enterotoxicosis is caused by toxin produced by _____.

(8) Agaricus bisporos is also known as _____ Mushroom.

(9) State True / False : Eye formation is common in cheddar cheese.

(10) Which organism is targeted in modified method of Pasteurization?

(11) What is Kefir?

(12) _____ causes roppiness in milk.

(13) Define: Epibacteria

(14) What is Sludge?

(15) What is an indicator organism?

(16) _____ Technique is used for treatment of single household Waste water.

(17) Define: Bioaugmentation

(18) Give the name of microbes used in recovery of Uranium.

(19) _____ can be used as Bioplastic.

(20) _____ plant is used to produce Biodiesel.

2 (a) Answer specifically : (Any 3) **6**

(1) What is Leghaemoglobin? What is its significance?

(2) Write in brief on flat sour spoilage.

(3) What are GRAS chemicals?

(4) What is zoogleal film?

(5) What are the advantages of RRT over the MBRT test?

(6) What are recalcitrant compounds? Give one example.

(b) Answer Specifically : (Any 3) **9**

(1) Write in brief on Rhizosphere.

(2) Write in brief on drying as a method of food preservation.

(3) Narrate the salient features of MBRT Test.

(4) Which organisms are found as a nuisance in water?

(5) Discuss : Biomagnification

(6) Write a note on Biodeterioration of Textile.

(c) Write short notes : (Any 2) **10**

(1) Discuss Sulfur cycle with appropriate examples.

(2) Write a note on potent neurotoxin involved in food poisoning.

(3) Write in detail the steps involved in cheese manufacturing process.

(4) Write a note on purification of water.

(5) How Biotechnology can act as an interdisciplinary pursuit?

3 (a) Answer specifically : (Any 3) **6**

(1) Write in brief about A horizon of Soil.

(2) Write in brief on AGMARK.

(3) What is Sauerkraut?

(4) Write a note on temperature dependent microbes commonly found in milk.

(5) Enlist various factors affecting distribution of microbes in aquatic environment.

(6) What is bioremediation? Give one example.

(b) Answer Specifically : (Any 3) **9**

(1) Draw neat labeled diagram of Winogradsky's column.

(2) What is antagonism? Give two examples of antagonism.

(3) What are the sources of entry of microbes in milk?

(4) Discuss anaerobic sludge digestion in brief.

(5) How bioethanol can be used as a biofuel?

(6) How osmotic pressure can be employed for food preservation?

(c) Write short notes (Any 2) **10**

(1) Write a note on Positive interactions found amongst microbes.

(2) Discuss in detail Single Cell Protein Production.

(3) Write an elaborate essay on Preservation of Milk.

(4) Discuss in detail Biological treatment of waste water.

(5) Write an essay on Bioleaching of copper.
