

MAHARASHTRA ANIMAL AND FISHERY SCIENCES UNIVERSITY, NAGPUR
SEMESTER END THEORY EXAMINATION, B.Tech. (D.T.) DEGREE COURSE 2018-19

Semester	: I (V Dean)	Academic Year	: 2018-2019
Course No.	: DM-101	Course Title	: Fundamentals of Microbiology
Credits	: 2+1=3	Total Marks	: 50
Day & Date	: Friday, 04/01/2019.	Time	: 11.00 to 13.00 Hrs

- Note :**
- 1) All questions from **Section 'A'** are compulsory.
 - 2) Solve **Any Three** questions from **Section 'B'**.
 - 3) Draw neat and well labelled diagram wherever necessary.

SECTION – 'A'

- Q. 1. A) State the two examples of the following organisms. (05)
- i) Bacteria
 - ii) spore
 - iii) Virus
 - iv) Yeast
 - v) Mold
- B) Answer the following question in one sentence. (05)
- i) State the importance of staining.
 - ii) Who discovered pasteurization process?
 - iii) Enlist types of microscopy.
 - iv) What do you mean by bactericidal agent?
 - v) State the role of flagella.
- Q. 2 A) Give reasons for the following sentence. (05)
- i) Fungi are included eukaryotic cell.
 - ii) Antony Van Leeuwenhoek is father of microbiology.
 - iii) The rate of spontaneous mutation is less than induced mutation.
 - iv) Soil is good source of microorganisms than water and air.
 - v) Petri dishes are inverted before incubation.
- B) Define the following. (05)
- i) Recombination
 - ii) Genes
 - iii) Mutation
 - iv) Nucleotides
 - v) Nutrition

(P.T.O.)

SECTION - 'B'

- Q. 3 A) Explain the role of various factors affecting microbial growth. (05)
 B) Define growth. Write a note on growth phases. (05)
- Q. 4 A) Explain in brief the work of Tyndal and Joseph Lister. (05)
 B) Explain the microbiology of Air. (05)
- Q. 5 A) Explain bacterial growth curve with neat sketch. (03)
 B) Give the type of RNA. (03)
 C) Write a short note on microbiology of water. (04)
- Q. 6 A) Write a short note on viruses. (03)
 B) Differentiate between prokaryotic and Eukaryotic microorganisms. (03)
 C) Differentiate between gram positive and gram negative bacterial cell. (04)
- Q. 7 Describe in detail about genetic recombination in bacteria by transudation, transformation and conjugation. (10)
