

MAHARASHTRA AGRICULTURAL UNIVERSITIES EXAMINATION BOARD  
SEMESTER END EXAMINATION

B.Sc. (Hons.) Horticulture

Semester	: II (New)	Term	: II	Academic Year	: 2017-18
Course No.	: H/MIBO 121	Title	: Introductory Microbiology		
Credits	: 2 (1+1)				
Day & Date	: Saturday, 28.04.2018	Time	: 09.00 to 11.00	Total Marks	: 40

- Note :
1. Solve ANY EIGHT questions from SECTION "A".
  2. All questions from SECTION "B" are compulsory.
  3. All questions carry equal marks.
  4. Draw neat diagrams wherever necessary.

SECTION "A"

- Q.1 Define microbiology and explain it's scope and importance in agriculture and animal husbandry and dairy technology.
- Q.2 Differentiate between prokaryotes and eukaryotes.
- Q.3 What do you mean by bacterial growth? Explain growth phases in bacteria with growth curve.
- Q.4 Define fungus. Give the important characteristics of fungi.
- Q.5 Enlist internal and external structures of bacterial cell and write the functions of capsule and flagella.
- Q.6 Define morphology. Explain cell groupings in *Coccus* and *Bacillus* bacteria.
- Q.7 Write short notes (Any Two).
- a) Phytonematodes      b) Actinomycetes      c) Phytoplasmas (*Mycoplasma*)
- Q.8 Enlist methods of reproduction in bacteria and explain in detail binary fission.
- Q.9 Define bacteriophages and explain in detail lytic cycle.
- Q.10 What do you mean by virus? Write down the characteristics of virus along with diseases caused by them.

SECTION "B"

- Q.11 Fill in the blanks.
- 1) Prokaryotic cell contains \_\_\_\_\_ type of ribosomes.
  - 2) Group of hyphae is known as \_\_\_\_\_.
  - 3) The example of cell wall-less prokaryotic microorganism is \_\_\_\_\_.
  - 4) In leguminous plants nitrogen is fixed symbiotically by \_\_\_\_\_.
- Q.12 Match the following pairs.

"A"

- 1) Anton Van Leeuwenhock
- 2) Louis Pasteur
- 3) Robert Hook
- 4) Charls Darwin

"B"

- a) Pasteurization
- b) Cell theory
- c) Origin of species
- d) Simple microscope

