



Avinashilingam Institute for Home Science and Higher Education for Women

(Deemed to be University under Category 'A' by MHRD, Estd. u/s 3 of UGC Act 1956)

Re-accredited with 'A+' Grade by NAAC. Recognised by UGC Under Section 12B

Coimbatore - 641 043, Tamil Nadu, India

**Bachelor's Degree Examination – March 2021
I Semester**

**Class : I UG
Major : Botany**

**Time : 3 Hours
Max. Marks: 100**

18BBOC01 Microbiology

Part A

10 x 1 = 10

Choose the Correct Answer

- The term Microbiology was coined by
 - Loius pasteur
 - Edward Jenner
 - Antonie van Leeuwenhoek
 - Hans C. Gram
- Which one is the most common Gram-negative bacteria?
 - Streptococcus mutans
 - Staphylococcus aureus
 - Escherichia coli
 - Bacillus cereus
- The word 'Bacteria eater' refers to
 - Yeasts
 - Bacteriophages
 - Both A and B
 - None of the above
- Yeast cell particle size is typically of
 - 5×10cm
 - 5×10mm
 - 50×100nm
 - 5×10µm
- Bacteria, yeast and molds are the major causes of
 - Food spoilage
 - Air spoilage
 - Water spoilage
 - Alcohol spoilage
- Typhoid fever is caused by
 - Nematodes
 - Yeasts
 - Molds
 - Bacteria
- Nitrogen fixation is a process by which molecular nitrogen in the air is converted into_____
 - N₂
 - NH₃
 - O₂
 - COOH
- The bacteria associated with the formation of root nodules on legume plants is_____
 - Mycobacterium
 - Agrobacterium
 - Rhizobium
 - Clostridium
- Among the following _____ is a type of aerobic respiration.
 - Lactic acid fermentation
 - Alcoholic fermentation
 - Propionic acid fermentation
 - Glycolysis
- The bio-based removal of contaminants, pollutants or toxins from soil, water and other environments is known as
 - Microbiology
 - Bioremediation
 - Biotechnology
 - Mycology

Part B
Answer ALL questions
Each answer should not exceed 400 words or two pages

5 x 6 = 30

- 11.a. Briefly explain the scope of Microbiology.
(or)
11.b. Comment on the Economic uses of Bacteria.
- 12.a. Write a critical account on lytic and lysogenic phases.
(or)
12.b. Explain the economic importance of Yeast.
- 13.a. Briefly explain the causes and symptoms of food poisoning.
(or)
13.b. Describe the methods of food preservation.
- 14.a. Comment on application of microbial flora.
(or)
14.b. Write brief note on nif genes.
- 15.a. Compare the aerobic and anaerobic mode of respirations.
(or)
15.b. How will you prepare the wine from grapes?

Part C
Answer ALL questions
Each answer should not exceed 800 words or four pages

5 x 12 = 60

- 16.a. Briefly explain the classification of Bacteria with suitable examples.
(or)
16.b. Discuss the types of sexual reproduction in Bacteria.
- 17.a. Explain the classification of viruses with suitable examples.
(or)
17.b. Elaborate the causes and symptoms of Acquired Immuno Deficiency Syndrome (AIDS).
- 18.a. How can you control Cholera? Add a note on symptoms and causative organism of Cholera.
(or)
18.b. Write a critical account on Typhoid including causative organism, symptoms and control measures.
- 19.a. Compare Symbiotic and Asymbiotic nitrogen fixation.
(or)
19.b. Discuss in detail about biofertilizers and biopesticides.
- 20.a. Comment on the use of vaccines and explain the method of production of Rabies vaccine.
(or)
20.b. Describe in detail about production of Penicillin and Streptomycin antibiotics.
