



DCX-003-0011011 Seat No. _____

B. Sc. (Microbiology) (Sem. I)
(W.E.F.-2016) Examination

August – 2022

MB-101 : Basic Aspects of Microbiology
(Old Course)

Faculty Code : 003

Subject Code : 0011011

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

[Total Marks : 70

- 1 (A) Objective type questions : 4
1. Who is known as father of microbiology?
 2. Study of fungi is called.....
 3. Define: Microbiology
 4. Enlist major groups of microbes
- (B) Answer in brief : 2
1. Write in brief about Koch's postulate.
- (C) Answer in detail : 3
1. Write a note on Whittaker's classification system.
- (D) Answer in detail : 5
1. Explain various applied areas of microbiology.
- 2 (A) Objective type questions : 4
1. Give contribution of Alexander Fleming in the field of microbiology.
 2. Study of algae is called.....
 3. Describe shape and arrangement of streptococci.
 4. What is medical microbiology?
- (B) Answer in brief : 2
1. Explain Bergy's manual classification.
- (C) Answer in detail : 3
1. Describe experiments disproving spontaneous generation theory.
- (D) Answer in detail : 5
1. Explain in detail major groups of microbes.

- 3 (A) Objective questions : 4
1. Define: Refractive index
 2. What are different types of objective lens?
 3. What do you mean by magnification?
 4. Give examples of decolourizers used in staining technique.
- (B) Answer in brief : 2
1. What is simple staining?
- (C) Answer in detail : 3
1. Explain phase contrast microscopy.
- (D) Answer in detail : 5
1. Explain in detail electron microscopy.
- 4 (A) Objective questions : 4
1. Which mordant is used in Gram stain?
 2. Write role of condenser in microscope.
 3. Which microscope can be used to study virus?
 4. Define: numerical aperture
- (B) Answer in brief : 2
1. What is differential staining?
- (C) Answer in detail : 3
1. Explain fluorescence microscopy.
- (D) Answer in detail : 5
1. Write a detailed note on light microscopy.
- 5 (A) Objective type questions : 4
1. What is chemotaxis?
 2. A cluster of flagella present at one end is called _____.
 3. Capsule is made up of.....
 4. What is endospore?
- (B) Answer in brief : 2
1. Describe. Shape and arrangement of bacteria.
- (C) Answer in detail : 3
1. Describe : Sporulation.
- (D) Answer in detail : 5
- 1 Describe structure and function of flagella.

- 6 (A) Objective type questions : 4
1. What is amphitrichous flagellal arrangement?
 2. What is function of pilli?
 3. What is phototaxis?
 4. What are different shapes of bacteria?
- (B) Answer in brief : 2
1. Describe functions of capsule.
- (C) Answer in detail : 3
1. Write difference between Gram positive and Gram negative bacteria.
- (D) Answer in detail : 5
1. Describe structure and function of cell wall.
- 7 (A) Objective type questions : 4
1. What are phototrophs?
 2. What are thermophiles?
 3. What are facultative anaerobes?
 4. Give examples of different carbon source.
- (B) Answer in brief : 2
1. Note down different colony characteristic of bacteria.
- (C) Answer in detail : 3
1. Describe any three preservation techniques.
- (D) Answer in detail : 5
1. Write a detailed note on nutritional requirement of bacteria.
- 8 (A) Objective type questions : 4
1. What are chemotrophs?
 2. What are mesophiles?
 3. Write role of agar-agar in bacteriological media.
 4. Give examples of different nitrogen sources.
- (B) Answer in brief : 2
1. Describe types of bacteria depending on pH.
- (C) Answer in detail : 3
1. Describe different types of media.
- (D) Answer in detail : 5
1. Write a detailed note on methods for isolation of pure culture techniques.

- 9 (A) Objective type questions : 4
1. What is budding?
 2. What is chemostat?
 3. What is lag phase?
 4. What is dilution rate?
- (B) Answer in brief : 2
1. Describe: Synchronous growth.
- (C) Answer in detail : 3
1. Explain continuous culture technique.
- (D) Answer in detail : 5
1. Explain in detail bacterial growth curve.
- 10 (A) Objective type questions : 4
1. What is fragmentation?
 2. What is turbidostat?
 3. What is log phase?
 4. Define: growth
- (B) Answer in brief : 2
1. What is Growth rate and generation time?
- (C) Answer in detail : 3
1. Describe. Septum formation.
- (D) Answer in detail : 5
1. Write a detailed note on reproduction of bacteria.
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