

B.Sc. Semester - 1 (CBCS) Examination
July-2025 (OLD COURSE)
MICRO BIOLOGY(CORE)

Time: 2:30 Hours**Marks: 70****Instructions:**

1. All questions are compulsory.
2. Figures to the right indicate marks.

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- Que-1(A) Objective type questions. (04)**
- 1) Immunology is applied field of microbiology. (True/ False)
 - 2) Define: Mycology
 - 3) Mention contributions of Joseph Lister.
 - 4) What is tyndallization?
- Que-1(B) Answer in brief (Any 1 out of 2) (02)**
- 1) Discuss distribution of microorganisms in nature.
 - 2) Germ theory of disease.
- Que-1(C) Answer in detail (Any 1 out of 2) (03)**
- 1) Discuss about agricultural microbiology.
 - 2) Describe Francesco Redi and fly experiment.
- Que-1(D) Write a note on (Any 1 out of 2) (05)**
- 1) Whittaker's five kingdom concept.
 - 2) Write a note on groups of microorganisms.
- Que-2(A) Objective type questions. (04)**
- 1) Write down the use of condenser in microscope.
 - 2) Define: Mordent.
 - 3) Mention one example of fluorescent dye.
 - 4) What is resolution power?
- Que-2(B) Answer in brief (Any 1 out of 2) (02)**
- 1) Discuss Principle of fluorescent microscopy.
 - 2) Confocal microscopy.
- Que-2(C) Answer in detail (Any 1 out of 2) (03)**
- 1) Preparation for light microscope examination.
 - 2) Construction of phase contrast microscopy.
- Que-2(D) Write a note on (Any 1 out of 2) (05)**
- 1) Principle and working of bright field microscopy.
 - 2) Write a note on acidic and basic stains.
- Que-3(A) Objective type questions. (04)**
- 1) Pleomorphic cell can exhibit a variety of shape. (True/ False)
 - 2) What do you mean by monotrichous flagella?
 - 3) Full form of DPA.
 - 4) Define: Phototaxis.
- Que-3(B) Answer in brief (Any 1 out of 2) (02)**
- 1) Discuss pili.
 - 2) Discuss Spheroplast.
- Que-3(C) Answer in detail (Any 1 out of 2) (03)**
- 1) Discuss about protoplast.
 - 2) Describe functions of capsule.

- Que-3(D) Write a note on (Any 1 out of 2) (05)**
1) Sporogenesis.
2) Write a note on gram positive bacterial cell wall.
- Que-4(A) Objective type questions. (04)**
1) Psychrophiles are able to grow at 0°C or lower. (True/ False)
2) Write down the name of solidifying agent.
3) Mention one example of differential media.
4) Define: Mesophiles.
- Que-4(B) Answer in brief (Any 1 out of 2) (02)**
1) Gaseous requirements of bacteria.
2) Preparation of media.
- Que-4(C) Answer in detail (Any 1 out of 2) (03)**
1) Discuss about phototrophs.
2) Describe cultivation of autotrophs.
- Que-4(D) Write a note on (Any 1 out of 2) (05)**
1) Discuss types of media.
2) Write a note on nutritional requirements of bacteria.
- Que-5(A) Objective type questions. (04)**
1) Define the Different Phases of growth Curve.
2) Write down the name of organism that reproduce by budding.
3) Define: Generation time.
4) Define: Growth.
- Que-5(B) Answer in brief (Any 1 out of 2) (02)**
1) Turbidostat.
2) Transition periods between growth phase.
- Que-5(C) Answer in detail (Any 1 out of 2) (03)**
1) Discuss about lag phase of growth curve.
2) Describe continuous culture.
- Que-5(D) Write a note on (Any 1 out of 2) (05)**
1) Discuss Binary fission.
2) Write a note on logarithmic phase of bacteria.
