

B.Sc. Semester - 1 (CBCS) Examination
Nov/Dec - 2022 (NEW 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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Q.1**A. Objective type questions. (04)**

1. Define: Microbiology
2. _____ Scientist suggested a five kingdom classification.
3. Which scientist first disproved spontaneous generation by showing that maggots only appear on decaying meat that has been exposed to flies?
4. Write the contributions of Robert Koch.

B. Answer in brief (Any 1 out of 2) (03)

1. Write the difference between procaryotic and eucaryotic.
2. Enlist: Koch's four postulates.

C. Write a note on (Any 1 out of 2) (07)

1. Contribution of Louis Pasteur in field of microbiology.
2. Short note on: Applied areas of Microbiology

Q.2**A. Objective type questions. (04)**

1. Full form of: SEM
2. When the power of ocular lens is 10X and Objective lens is 20X, the magnification is _____.
3. Define: Magnification
4. Explain: Stain.

B. Answer in brief (Any 1 out of 2) (03)

1. Application of Fluorescent Microscopy.
2. Use of fixative.

C. Write a note on (Any 1 out of 2) (07)

1. Electron microscopy.
2. Dark Field microscopy.

Q.3**A. Objective type questions. (04)**

1. Explain: Spore.
2. Define: Protoplast
3. Bacterial capsule is made up of plastic. (True/False)
4. Full form of PHA

B. Answer in brief (Any 1 out of 2) (03)

1. Difference between cell wall and cell membrane.
2. Short note on: Nuclear Material.

C. Write a note on (Any 1 out of 2) (07)

1. Composition of Gram negative and Gram positive Bacterial cell wall.
2. Flagella types and function.

Q.4

A. Objective type questions.

(04)

1. Define: Obligate anaerobic
2. Explain: Phototrophs
3. Generation time of *Escherichia coli* is 24 hrs. (True/False)
4. Enlist the micronutrient need for growth of organism.

B. Answer in brief (Any 1 out of 2)

(03)

1. Cultural characteristics in short.
2. Enlist: Nutritional requirements of bacteria

C. Write a note on (Any 1 out of 2)

(07)

1. Explain in detail: Bacteriological Media
2. Physical conditions required for growth.

Q.5

A. Objective type questions.

(04)

1. Define: Generation time.
2. Write the calculation for the number of generations
3. Log phase also known as _____
4. Define: Microbial growth

B. Answer in brief (Any 1 out of 2)

(03)

1. Modes of cell division.
2. Growth rate

C. Write a note on (Any 1 out of 2)

(07)

1. Bacterial Growth Curve
2. Synchronous growth and Continuous culture of Bacteria.
