

July-2022

BLDE (DEEMED TO BE UNIVERSITY)

B.Sc. in Microbiology

[Time: 3 Hours]

[Max. Marks: 80]

I SEMESTER

PAPER - I (Introduction to Microbiology and Microbial Diversity)

QP CODE: 8105

Your answer should be specific to the questions asked.

Write Question No. in left side of margin.

Long Questions

10X1 = 10 Marks

1. Principle, ray diagram and application of Phase Contrast Microscope.

Short Essays: (Any – 8)

5 X 8 = 40 Marks

2. Describe contributions of Louis Pasteur in the field of Microbiology.
3. Economic importance of Algae.
4. Describe Koch's Postulates.
5. Difference between Prokaryotes and Eukaryotes.
6. Theory of Biogenesis vs Abiogenesis.
7. General characteristics of Bacteria and Virus.
8. Contributions of Paul Erlich and Edward Jenner.
9. Reproduction in Bacteria.
10. Principles of Systematic classification and Taxonomy.

Short Answers: (Any – 10)

3 X 10 = 30 Marks

11. Disease causing bacteria and the name of diseases.
12. Soil Microbiology.
13. Alexander Fleming.
14. What is Phycology?
15. Give some examples of economically important Algae and Fungi.
16. Amoeba.
17. What are Viroids and Prions? Give examples each.
18. How Fungi contribute to the biodeterioration?
19. What is a Microscope?
20. Bacterial distribution.
21. Prokaryotes & Eukaryotes.

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B.Sc. in Microbiology

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I SEMESTER

PAPER - II (Bacteriology)

QP CODE: 8106

Your answer should be specific to the questions asked.

Write Question No. in left side of margin.

Long Questions

10X1 = 10 Marks

1. Describe bacterial cell wall and Flagella its motility types.

Short Essays: (Any – 8)

5 X 8 = 40 Marks

2. Describe different culture media.
3. What are physical methods of sterilization?
4. What are the factors affecting growth of bacteria. Elaborate.
5. Principle behind Endospore staining.
6. Discuss general characteristics of Eubacteria and different genera of the same.
7. Ribosomes and its role in a prokaryote.
8. Cyanobacteria.
9. Mechanism of Acid-fast staining.
10. Differentiate between Gram positive and Gram negative organisms..

Short Answers: (Any – 10)

3 X 10 = 30 Marks

11. Write a short note on Plasmids.
12. What is generation time? If you have a generation time of 20 minutes, if you have started with 15 cells. How many cells would have in 250 minutes?
13. Short note on Basophiles and Thermophiles.
14. Why differential staining is done? Example
15. Explain briefly about sphaeroplasts, protoplasts, and L-forms.
16. What are basic dyes and acidic dyes?
17. Short note on Antiseptics, Phenols and disinfectants.
18. Write a note on Lactophenol-cotton blue staining.
19. What are Enriched media and Selective media?
20. What is a Capsule? What is its importance?
21. What are Firmicutes and Actinobacteria?