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Total No. of Pages : 02

Total No. of Questions : 09

B.Sc.(MLS) (Sem.-1)
ESSENTIAL BIOLOGY
Subject Code : BMLS-101-18
M.Code : 75258
Date of Examination : 18-06-2025

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt any FOUR questions.
3. SECTION-C contains THREE questions carrying TEN marks each and students have to attempt any TWO questions.

SECTION - A

1. Answer briefly :

- a) What is the scientific method in biology?
- b) Name two career options in Medical Laboratory Sciences.
- c) Distinguish between prokaryotic and eukaryotic cells (any two points).
- d) What is the role of the mitochondria?
- e) Define osmosis and diffusion.
- f) What is binary fission?
- g) Write any two differences between DNA and RNA.
- h) Define gene mapping.
- i) What is linkage in genetics?
- j) Define heredity.

SECTION - B

2. Describe the structure and function of epithelial tissue.
3. Explain the unit membrane concept with a labeled diagram of the fluid-mosaic model.
4. Discuss any five cell organelles and their functions.
5. Explain mitosis with neat diagrams.
6. Write a short note on multiple allelism with one example.

SECTION - C

7. Describe the ultra-structure of a eukaryotic cell with suitable diagrams.
8. Explain the process of protein synthesis with reference to the role of RNA.
9. Discuss Mendel's laws of inheritance and explain the chromosomal basis of inheritance.

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.