

QP Code : U24A076

Reg. No :

Name :

ST MARY'S COLLEGE (AUTONOMOUS), THRISSUR-20

**I SEMESTER B.A./B.Sc./B.Com/BSW (FYUGP) DEGREE EXAMINATION,
November 2024**

BTY1MN101 : Introductory Biology

2024 Admission Onwards

(Credits: 4)

Time : 2 Hours

Maximum Marks : 70

Section A

[Answer all. Each question carries 3 Marks] (Ceiling: 24 Marks)

1. What is biodiversity? Explain the primary levels of biodiversity. [BTL2]
2. What is gene therapy? Give one example of its use. [BTL2]
3. What is a fermenter? [BTL2]
4. What are Mendel's laws of inheritance? [BTL3]
5. Define biotechnology and describe its scope. [BTL4]
6. Describe the properties of water that make it essential for life. [BTL1]
7. What is the role of ribosomes in protein synthesis? [BTL4]
8. Define the Central Dogma of Molecular Biology. [BTL4]
9. Explain the process of transcription in brief. [BTL5]
10. What are Purines and Pyrimidines? [BTL2]

Section B

[Answer all. Each question carries 6 Marks] (Ceiling: 36 Marks)

11. Discuss the significance of chemical bonds in the structure and function of biological molecules. [BTL3]
12. Describe the structure and function of prokaryotic cells with an example. [BTL1]
13. Explain cell signalling. How do receptor proteins contribute to cellular communication? [BTL3]
14. Analyze non-living infectious agents with examples. [BTL4]
15. Describe the steps involved in producing therapeutic proteins using rDNA technology. [BTL4]
16. Describe the various stages of the cell cycle and their importance. [BTL3]
17. Analyze the process of translation and its regulation. [BTL4]
18. Analyze the impact of GMOs on agriculture and the environment. [BTL5]

Turn Over

Section C

[Answer any one. Each question carries 10 Marks] (1x10=10 Marks)

19. Discuss the process and applications of recombinant DNA technology. [BTL4]
20. Describe in detail about the importance of various elements and bonds in biological system. [BTL3]

< ***** >