

QP Code: P25B019

Reg. No :

Name :

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

II SEMESTER (CBCSS-PG) DEGREE EXAMINATION, MARCH 2025

M Sc Biology

BIO2C06 : ECOLOGY AND EVOLUTION

2024 Admission Onwards

Time:3 Hours

Maximum Weightage:30

Part A

*Short answer type questions: Answer **any four** questions. Weightage 2 for each question.
(4x2 = 8 Weightage)*

1. Explain stabilizing selection. [BTL1]
2. Outline the factors that accelerate global climate change. [BTL2]
3. Identify and explain tropical rain forests by its characteristics. [BTL3]
4. Analyze and explain the ecological succession in a pond. [BTL4]
5. Justify the conservation methods through the establishment of national parks and wildlife sanctuaries. [BTL5]
6. Relate substrate vibrations in acoustic signaling. [BTL2]
7. Comment on the use of microbes in biodegradation. Explain with example. [BTL3]

Part B

*Short essay-type questions: Answer **any four** questions. Weightage 3 for each question.
(4x3 = 12 Weightage)*

8. Show the influence of neutral theory in evolution. [BTL1]
9. Describe adaptive radiation in evolution with an example. [BTL1]
10. Compare and contrast gross and net production. [BTL4]
11. Compare J and S shaped growth curves. [BTL4]
12. Compare conservation method as In-situ or Ex-situ siting specific examples. [BTL5]
13. Comment on the role of fitness and adaptation in evolutionary biology. [BTL3]
14. Role of Environmental Impact Assessment as a tool in giving environmental clearance of various projects in India. [BTL3]

Turn Over

Part C

*Long essay-type questions: Answer **any two** questions. Weightage 5 for each question.
(2x5 = 10 Weightage)*

15. Explain Kin selection and altruism in sociobiology with suitable examples. [BTL2]
16. Justify origin of life from pre-existing life. [BTL1]
17. Identify and name different climatic regions and soil types in India. [BTL3]
18. Compare and conclude how Darwinism and Lamarckism shaped history of evolution. [BTL4]
