

2018

M.A./M.Sc. 1st Seme. Examination

GEOGRAPHY

PAPER—GEO-104

Full Marks : 40

Time : 2 Hours

The figures in the margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable.

Illustrate the answers wherever necessary.

Unit—104.1

Basics of Environment and Ecology

[Marks : 20]

Group-A

1. Answer any one question :

1×8

- (a) Elucidate the pattern of energy flow in a marine ecosystem.

(Turn Over)

- (b) Elucidate the ways the flora and fauna of desert ecosystem adapted themselves with the natural environment.
What are C_4 plants ?

Group-B

2. Answer any *two* questions : 2×4
- (a) Explain the processes of ecosystem metabolism.
 - (b) How are the laws of thermodynamics operate during flow of energy in ecosystem ?
 - (c) Briefly discuss the characteristic features of Forest ecosystem with special reference to layered forest.
 - (d) Delineate the intrinsic and instrumental value of Biodiversity.

Group-C

3. Answer any *two* questions : 2×2
- (a) What is CBD ?
 - (b) Mention the factors responsible for ecosystem stability.
 - (c) What is Gamma diversity ? Give example.
 - (d) Compare the characteristics of 'Eutrophic' lake from 'Oligotrophic' lake.
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Unit—104.2***Landscape Ecology and Planning*****[Marks : 20]**

1. Answer any *one* question : 1×8
 - (a) Define Landscape and briefly discuss the structure of landscape and their role in characterizing the same.
 - (b) Critically assess the impact of anthropogenic activities that modify natural landscape. What is edge effect ?

2. Answer any *two* questions : 2×4
 - (a) Enumerate the methodology to calculate Shannon Diversity Index with suitable example.
 - (b) Identify the ecological role of landscape corridors.
 - (c) Mention the role of keystone species in a habitat.
 - (d) Elucidate the relevance of landscape ecology for managing resources ?

3. Answer any *two* questions : 2×2
 - (a) Differentiate extinct species from endangered species. Give example.

- (b) What is the concept of sustainable landscape ?
 - (c) Explain the role of TEK in conserving landscape.
 - (d) Define landscape mosaic with proper example.
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