

Total No. of Questions : 8]

SEAT No. :

P2760

[Total No. of Pages : 2

[5033] - 101
M.Sc. (Semester - I)
ENVIRONMENTAL SCIENCE
EVSC - 101 : Environmental Biology
(2013 Pattern)

Time : 3 Hours]

[Max. Marks :50

Instructions to the candidates:

- 1) Solve any five questions from the following.*
- 2) Neat and labeled diagrams must be drawn wherever necessary.*
- 3) Figures to the right indicate full marks.*

Q1) Answer the following : **[10]**

- a) What is an ecosystem? Explain the functional attributes of ecosystem.
- b) Explain the concept of ecological efficiency in relation with trophic levels.

Q2) Answer the following : **[10]**

- a) Discuss the role of various biological processes in maintenance of ecological balance.
- b) Explain the process of energy flow in an ecosystem with suitable diagram.

Q3) Answer the following : **[10]**

- a) What are the characteristics of r and k selected species population?
- b) Discuss the relationship between species diversity, dominance and stability of the ecosystem.

Q4) Answer the following : **[10]**

- a) Write an account on intraspecific interaction and its ecological significance.
- b) Define succession. Comment upon the statement that 'Phenomenon of succession is community controlled'.

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Q5) Answer the following : [10]

- a) What are the challenges and adaptations of life in aquatic biomes?
- b) What are terrestrial biomes? Discuss forest diversity in India.

Q6) Answer the following : [10]

- a) Discuss in detail ecological significance of mangroves.
- b) Which are the environmental factors that influence microbial growth?

Q7) Answer the following : [10]

- a) What is meant by ethology? Write an account on reproductive behavior observed in animals.
- b) What are various forms of communication observed in animals?

Q8) Write short notes on the following : [10]

- a) Applications of Environmental Microbiology.
- b) Biogeochemical cycles.

