

Total No. of Questions : 8]

SEAT No. :

P2282

[Total No. of Pages : 2

[4933]-34

M.Sc.

ENVIRONMENTAL SCIENCE

ENV-311 : Restoration Ecology (OR)

(2008 Pattern) (Semester-III) (Optional)

Time : 3 Hours]

[Max. Marks : 80

Instructions to the candidates:

- 1) Answers to the two sections should be written in separate books.*
- 2) Neat diagrams must be drawn wherever necessary.*
- 3) Figures to the right indicate full marks.*
- 4) All questions carry equal marks.*
- 5) All questions are compulsory.*

SECTION-I

Q1) Answer Any Two of the following: **[10]**

- a) Discuss the problems in restoration of riverine ecosystem.
- b) What are the methods of bioremediation of heavy metal contaminated sites?
- c) Differentiate between selection criteria used for the afforestation and restoration of degraded forests.

Q2) Justify the following sentence (Any 2): **[10]**

- a) Restoration process is based on ecological principles.
- b) Artificial wetlands can be constructed for wastewater treatment.
- c) Pioneer species play important role in restoration.

Q3) Attempt Any Two from the following: **[10]**

- a) What is meant by watershed? Write the significance of watershed development.
- b) Differentiate land-use and land-cover. Mention various categories of them.
- c) Explain the advantages and limitations of phytoremediation.

P.T.O.

Q4) Write a note on (Any 2): **[10]**

- a) Bioremediation of mine soil dumps.
- b) Microflora from the rhizosphere.
- c) Resource appraisal in watershed.

SECTION-II

Q5) Answer Any Two of the following: **[10]**

- a) What are the objectives of line & area treatment?
- b) Explain the types of agro-forestry systems.
- c) Mention the selection criteria of plant species in watershed program.

Q6) Justify the following sentence (Any 2): **[10]**

- a) Co-operative lift irrigation proves to be significant in watershed programme.
- b) Organic farming in need of the day.
- c) Watershed is an unit of sustainable development.

Q7) Attempt Any Two from the following: **[10]**

- a) Discuss the problems faced in scaling up process of watershed.
- b) What is the role of local social institutions in watershed development programme.
- c) Mention the significance of agroforestry, comment on its methods.

Q8) Write a note on (Any 2): **[10]**

- a) Agrosilvopastoral system.
- b) Drain-line treatment.
- c) Current developments in restoration ecology.

