

M.Sc. (Botany) Semester - 4 (CBCS) Examination**March/April- 2019****Salinity, Desertification & Restoration Ecology
(Elective)****Time: 2:30 Hours****Marks: 70****Instructions:**

1. All questions are compulsory.
2. Figures to the right indicate marks.

Q.1 Answer the following (any 7) 14

1. Define the term saline – sodic soils
2. What are indigenous plants?
3. What is Ecodevelopment of arid land?
4. What are drought plants?
5. What do you mean by Gravitational effects?
6. What is wind erosion?
7. Explain the term: 'Flocculated and Deflocculated' in soil.
8. What do you mean by TSS? Explain it in relation to salt affected soil.
9. What is desertization?
10. Define the term 'Growth'

Q.2 Answer the following (any two) 14

1. Describe the physical condition of water and field capacity of soil.
2. Explain the movement of water in soil
3. Write a note on evaporation and evapotranspiration

Q.3 Answer the following 14

1. Explain the photosynthesis in relation to transpiration
2. Write a note on water balance in plants

OR**Q.3 Answer the following 14**

1. Upward movement of water in soil and roots – Discuss
2. Write a note on water supply and plant behavior

Q.4 Answer the following (any two) 14

1. Explain the significance of salinity. State the classification of salt affected soils.
2. Describe the role of Exchangeable sodium in soil
3. State the relationship between Electrical conductivity, pH and ESP with respect to saline soils.

Q.5 Answer the following (any two) 14

1. What is desertification? Explain different causes of desertification
2. Explain the loss of soil due to water erosion
3. Discuss – Adaptation of plants to arid conditions
4. Describe the importance of restoration of ecosystem