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SEAT No. _____

No. of Printed Pages : 02

SARDAR PATEL UNIVERSITY
S. Y. B.Sc. (3rd SEMESTER) EXAMINATION
22.11.2019, Friday
2.00 to 5.00PM
Environmental Science
US03CENV01 Concept of Ecology

Total Marks: 70
(10)

Q.1. Select the correct answer and write it in the answer sheet

1. Pyramid of _____ always shows upright condition.
(a) energy (b) Biomass (c) Number (d) None of above
2. There are mainly _____ kinds of ecosystem
(a) 4 (b) 3 (c) 5 (d) 2
3. _____ the position of one individual is unrelated to the positions of its neighbours
(a) Clumped (b) Dispersion (c) Random (d) Survivorship curve
4. _____ curve is characteristics of the species in which the population mortality rate is low in survivorship curve
(a) Diagonal (b) Convex (c) Concave (d) none of these
5. _____ indicates a low percentage of young individuals
(a) Broadbase (b) Urn-shaped (c) Round shape (d) Bell- shaped
6. Phenology is _____ type of community character.
(a) basal (b) quantitative (c) qualitative (d) none
7. Association index is _____ type of community character
(a) qualitative (b) quantitative (c) synthetic (d) physiognomic
8. _____ is result of migration and subsequent ecesis.
(a) zonation (b) stratification (c) competition (d) colonisation
9. _____ ecology emphasizes the totality or pattern of relationships between organisms and the sea environment
(a) Marine (b) Estuarine (c) Desert (d) Freshwater
10. The study of the sea in all of its aspects is termed as _____
(a) Marine (b) Estuarine (c) limnology (d) Oceanography

(1)

(P.T.O)

Q2. Answer the following questions. (Any ten)

[20]

1. Write a note on pyramid of energy.
2. Draw a labeled diagram of Y-shaped energy flow model
3. Write a note on biotic and abiotic components of ecosystem.
4. Define population and enlist the population characteristics
5. Give a short note on Dispersion.
6. Write down the difference between r-selected and k-selected population
7. Give a short note on phenograms with example of Indian grassland
8. Discuss presence and Constance are considered as synthetic character
9. Write a note on abundance as a qualitative character
10. Describe in brief Abiotic component of pond ecosystem
11. Define : Desert Ecology
12. Write a short note on biotic component of ocean ecosystem

- Q3. (a) Write a note on pyramid of biomass with suitable examples (05)
(b) Give a note on single channel energy model (05)

OR

- Q3. (a) Give a note on Food web (05)
(b) Discuss ecological energetic with energy flow in various ecosystem (05)

- Q4. (a) Describe in detail about survivor curve (05)
(b) Explain nature of factors that influence population density (05)

OR

- Q4. (a) Write a detail note on Age structure (06)
(b) Discuss Natality and Mortality in detail (04)

- Q5. (a) Discuss various types of zones in community structure with proper diagram (07)
(b) Give a short note on stratification with suitable example (03)

OR

- Q5. (a) Write a detail note on quantitative characters of community. (07)
(b) Discuss species diversity as characteristic of a community study (03)

- Q6. Explain zonation in sea and communities of marine environment. (10)

OR

- Q6. Describe Biotic component of Pond ecosystem (10)

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