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No. of Printed Pages: 02

[89] SEAT No. _____

SARDAR PATEL UNIVERSITY

M. Sc Integrated Biotechnology (IGBT) - IVth (04) Semester

Subject Code & Subject: PS04CIGB03- ENVIRONMENTAL BIOLOGY

Date: 25-03-2019, Monday Time: 10: 00A.M. TO 01: 00 P.M Total Marks: 70

Note: (1) All questions are compulsory. (2) Figure to right indicates marks.

01X08= 08

Q-1. Answer the following objective questions.

1. Abiotic components of the ecosystems is
(A) Gases (B) Soil (C) Water (D) Plants
2. Ecological pyramid showing the relationship between the various trophic level of a.....
(A) Autotrophic (B) Trophic (C) Ecosystem (D) Community
3. One individual is affected adversely by another but the second is unaffected, the relationship is
(A) Amensalism (B) Mutualism (C) Neutralism (D) Commensalism
4. Mortality rate of a population refers to the number of individualsper unit time.
(A) Organisms (B) Birth rate (C) Birth (D) Dying
5. Carnivores get water supply from theof their prey.
(A). Blood (B). Enzyme (C). Water (D). Food
6. Fresh water ecosystems havepercentage of dissolved salts.
(A). Medium (B). High (C). Very high (D). Low
7. Normal enzymes are adjusted to operate best at temperatures in the range from.....
(A). 28^o C to 30^o C (B). 18^o C to 20^o C (C). 38^o C to 40^o C (D). 31^o C to 33^o C
8. Frequency of wave - lengths in visible light ranges from
(A). 190 nm to 260 nm (B). 290 nm to 360 nm (C). 300 nm to 380 nm (D). 390 nm to 760 nm

Q-2. Answer the following (Any Seven).

02X07=14

1. Define the followings: Ecology and Ecosystems.
2. Write the scope of ecology.
3. What is negative relationship and positive relationship?
4. Brief note on life table.
5. Explain the term: Neutralism and commensalism.
6. Enlist the different terrestrial ecosystems.
7. Write the physical properties of water.
8. What are the different types of adaptations?
9. Brief note on temperature range.

(P.T.O)

Q-3 (A). What are the abiotic components of ecosystem? Discuss any three components. (06)

(B). Write a note on Pyramid of Biomass. (06)

OR

(B). Write a note on Pyramid of energy. (06)

Q-4 (A). Explain the mechanism of biological clock. (06)

(B) What is population ecology? Explain the life table and age structure. (06)

OR

(B) Write a short note on survivorship curves. (06)

Q-5 (A). Enlist the effects of water on animals. Explain any three effects. (06)

(B) What are the aquatic ecosystems? Explain the pond ecosystem. (06)

OR

(B) Write a short note on Desert ecosystem. (06)

Q-6 (A). What are the effects of light in plants? Explain any three effects. (06)

(B) Write a short note on desert and fossorial adaptations. (06)

OR

(B) Explain the hydrological cycle. (06)

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