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SEAT No. _____

No. of Printed Pages: 02

SARDAR PATEL UNIVERSITY

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

Subject Code & Subject: PS04CIGB03- ENVIRONMENTAL BIOLOGY

Date: 16-04-2018, 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.

Q-1. Answer the following objective questions.

01X08= 08

1. Ecology was first proposed by the German biologist in 1869.
(A) Ernst Haeckel (B) John Kristopher (C) O.D. Philips (D) A.G. Tansley
2. Sequential arrangement of energy flow in ecosystem is.....
(A) Food web (B) Food chain (C) Food energy (D) Both (A) and (B)
3. Organism that produces antibiotics and the species inhibited by the antibiotics are example of.....
(A) Commensalism (+,0) (B) Neutralism (0,0) (C) Amensalism (-, 0) (D) Mutualism (+,+)
- 4.....is/are predator(s).
(A) Lion (B) Cow (C) Buffalo (D) Zebra
5. Atmospheric moisture is present as invisible vapour is known as the
(A). Precipitation (B). Humidity (C). Cloud (D). Fog
6. Lentic fresh water ecosystem includes.....
(A). River (B). Brook (C). Pond (D). Spring
7. Oriented locomotory movement towards and away from a source of light is
(A). Phototaxis (B). Photokinesis (C). Phototatic (D). Telotaxis
8. In Nitrogen cycle, organic nitrogen is converted to.....
(A). Ammonium (B). Ammonia (C). Ammonium ions (D). Both (A) and (C)

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

02X07=14

1. Define the followings: autecology and synecology.
2. What is the role of producers in an ecosystem?
3. Write differentiates between the natality and mortality.
4. What is Autecology? Enlist the different study in autecology.
5. Enlist the different physical properties of water.
6. Give an account on hydrocoles.
7. Write the brief note on range in temperature.
8. Define lotic water. Give examples of lotic water.
9. Define telotaxis and photokinesis. P.T.O

Q-3 (A) Explain the role of food chain and its trophic levels in an ecosystem with reference to terrestrial ecosystem. (06)

(B) Write a note on pyramid of number with suitable examples. (06)

OR

(B) Write a note on biotic component of an ecosystem. (06)

Q-4 (A). What is mortality? Explain the different types of survivorship curves exist in nature. (06)

(B) Write a detail note on mutualism between plants and animals with suitable examples. (06)

OR

(B) What is ecological succession? Write a note on climax concept with suitable theories. (06)

Q-5 (A). What is soil profile? Discuss the composition of soil. (06)

(B) Enlist the different types of ecosystem. Explain any one. (06)

OR

(B) Write a note on effects of water on animals in reference to xerocoles. (06)

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

(B) Write a brief not on Light intensity, Duration and amount. (06)

OR

(B) Discuss the cursorial adaptation with suitable examples. (06)

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