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[28/A-42]

Sardar Patel University
M.Sc. (Integrated) Biotechnology
Semester IV Examination 2016
Environmental Biology : PS04CIGB 03
Saturday 2nd April, 2016
10:30 am to 1:30 pm

Total Marks: 70

Notes : (i) Figures to the right indicate marks.
(ii) Draw diagrams wherever necessary.

Q I Multiple choice Questions. **[08]**

1. ..... deal with the study of the relationship between organisms and their environments.
   (A) Ecology (B) Autecology
   (C) Synecology (D) None of them.
2. All the food chain end at the ..... level.
   (A) Producer (B) Decomposer
   (C) Consumer (D) Heterotrophs
3. Parasites do not kill their .....
   (A) Competitors (B) Consumers
   (C) Host (D) All of them
4. Polyclimax theory was proposed by..... in 1935.
   (A) Whittaker (B) Sellack
   (C) Clements (D) Tansley
5. Rainfall is the chief source of soil.....
   (A) Moisture (B) Humidity
   (C) Humus (D) None of them
6. ..... bonding is responsible for high heat of vaporization of water.
   (A) Oxygen (B) Hydrogen
   (C) Hydrogen and Oxygen (D) None of them
7. .....are capable of adapting and surviving relatively large temperature changes in the environment.
   (A) Stenotherms (B) Homeotherms
   (C) Eurytherms (D) Poikilotherms
8. Light is fundamentally important for the production of .....
   (A) Pigments (B) Chloroplast
   (C) Tonoplast (D) Chlorophyll

[P. T. O]

Q II Answer the following in short. (Attempt any seven) **[14]**

1. What do you mean by ecology? Write two major divisions of ecology.

2. Write a short note on: Role of decomposers in terestrial environment.

3. What is parasitism?

4. Define neutralism. Give suitable example.

5. What is weathering of soil?

6. Write the characteristics of coniferous ecosystem.

7. What are the physical properties of water

8. Define phototaxis and Photokinesis.

9. Draw the flow chart of hydrological cycle.

QIII **a.** Write a note on food chain and trophic levels. **[06]**

b. What are ecological pyramids? Discuss in detail about pyramid of number and pyramid of energy. **[06]**

OR

b. Write a detail note on scope of ecology. **[06]**

QIV **a.** Describe mutualism with suitable examples. **[06]**

b. Explain climax concept. **[06]**

OR

b. Write a note on natality and mortality. **[06]**

QV **a.** Write a short note on soil profile. **[06]**

b. Enlist different types of aquatic ecosystems. Explain any one. **[06]**

OR

[illegible] forest [illegible]

[illegible] are the effects of light on plant and animal[illegible]

[illegible] effects on pla[illegible]

[illegible]

[illegible]

[illegible] of ecological [illegible]

[illegible] adaptations