2016

ZOOLOGY

ZOO 206 (Elective)
AQUACULTURE

Full Mark : 40
Time : $1^1/_2$ Hrs

Figures in the right hand margin indicate full marks for the question

All questions are compulsory and Candidates are answer directed.

1) Answer all the following : 1 x 4 = 4

i) Euryhaline marine organism refers to

a) Extend their distribution from the sea to the upper reach of the estuary

b) They can tolerate salinity as low as 15%

c) Form the majority of the total estuarine biota

d) All the above.

(ii) Thermocline is a zone which

a) Is a feature of tropical lakes

b) Does not limit the distribution of warm water and cold water fishes.

c) It acts as an effective barrier for any vertical exchange of o_2 from epilimnion to hypolimnion.

d) All the above.

(iii) The productivity of lake is chiefly regulated by

a) Natural productivity of lake water

b) Natural food to fish

c) Degree of water pollution

d) All the above

iv) biotope is

a) area of uniform environmental conditions providing a living place for a specific assemblage of plants and animals.

b) A biotope is a small scale phenomenon like aquarium

c) Both a and b are correct

d) A biotope is generally considered to be a large-scale phenomenon.

2. Answer all the following : 2 x 3 = 6

i) Why estuarine ecosystem is called transition zone? Give two examples of estuarine biota.

ii) What do you mean by ontogenyl of lake?

iii) Wetland ecosystem prevents flood and filter water. Elaborate the statement.

3. Answer the following : 5 x 2 = 10

i) Role of light, dissolved oxygen and ionic concentration in aquatic system.

ii) Characteristic of estuarine ecosystem and role in fishery.

4. Answer the following (Any one) 8 x 1 = 8

i) Discuss the conservation and management strategies of water resources for use of aquatic communities.

ii) Describe the classification the lake ecosystem based on productivity.

5. Answer the following (Any one) : 12 x 1 = 12

i) Discuss the classification of plankton and significance in aquaculture with example of common phytoplankton of Indian rivers. 5+5+2=12

ii) Discuss some common approaches of conservation of water and their management practices for sustainable development of aquatic resources. 6+6 =12

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