বিদ্যাসাগর বিশ্ববিদ্যালয়

VIDYASAGAR UNIVERSITY

B.Sc. Honours Examination 2021

(CBCS)

1st Semester

ZOOLOGY

PAPER—C2T & C2P

ECOLOGY

Full Marks : 60

Time : 3 Hours

The figures in the right-hand margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable.

THEORY : C2T

Group – A

Answer any *three* questions. 3×12

1. (a) Define survivorship curve.

(b) What is type of survivorship curves found in – a) Man b) Fish c) Bird ?

(c) Define commensalism and ammensalism with suitable example. 2+6+4

2. (a) Distinguish between *in-situ* and *ex-situ* conservation.

(b) Mention the objectives of *in-situ* conservation.

(c) Discuss about advantages and disadvantages of *in-situ* conservation.

(d) What is Red Data Book? 2+4+4+2

3. What is Keystone species? Explain it with example. Write about vertical stratification with explanation, justification and example. 3+9

4. Differentiate between Antochthonous and Allochthonous sources of nutrients. Explain and classify the ecological pyramid cinsidering all possible features with example. 3+9

5. (a) What is meant by density dependent population regulation?

(b) Explain edge effect citing suitable example.

(c) Draw the relationships among primary, secondary, net and groups productivities. 3+4+5

6. (a) Differentiate Antecology and Synecology.

(b) Write about the level of organisation with explanation and example. 4+8

Group – B

Answer any *two* questions. 2×2

7. Mention the formula for exponential population growth.

8. Define succession and seral stage.

9. Mention the significance of Bell-shaped Age pyramid.

10. Comment on Biosphere Reserve.

PRACTICAL : C2P

Answer any *one* question. 1×15

1. Calculate the Shannon - Weiner diversity from the data supplied. Make comments on the result. 12+3

2. Write working principle, chemicals required, procedure and calculation to measure dissolved oxygen (DO) in the water sample. Comment on your prospective findings. 4+3+3+5

3. What is pH ? How is it measured ? Write the effect of pH in aquatic organisms along with ecological importance of observed value. 2+5+8

Answer any *one* question. 1×5

4. Identify the following Zooplankton. Mention the systematic position and comment on its ecological significance. 2+3

5. Briefly highlight the method of pH and coment on the prospective outcome. 3+2

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