

U.G. 2nd Semester Examination - 2021

ZOOLOGY

[HONOURS]

Course Code : ZOOL-H-CC-T-03

Full Marks : 20

Time : 1 Hour

The figures in the right-hand margin indicate marks.

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

1. Answer any **five** of the following questions:

1×5=5

- a) Distinguish between food chain and food web.
- b) What do you mean by edge effect?
- c) What is nitrification?
- d) What is keystone species?
- e) What is climax community?
- f) Name two national parks in India where tigers are found.
- g) Distinguish between *in-situ* and *ex-situ* conservation.

2. Answer any **one** of the following questions:

5×1=5

- a) Why the number of trophic levels is limited in

an ecosystem? What is age pyramid? Describe age pyramids with diagrams. 1+1+3=5

- b) What does the Lotka-Volterra predator/prey model tell us about the relationship between predator and prey populations over time?
- c) Write a short note on the nitrogen cycle. What is its significance? 4+1=5

3. Answer any **one** of the following questions:

10×1=10

- a) What is species diversity? Comment on the density dependent and independent factors of population regulation. What is Gause's principle? Describe with one laboratory example. 2+3+2+3=10
- b) What is ecological efficiency? What is ecotone? Describe vertical stratifications in a forest community. 2+2+6=10
- c) What are the major two threats to the tiger population? What is Project Tiger? What is national park? Cite two provisions of 'Schedule I' of Wild Life Protection Act 1972. Cite two examples of animals included in 'Schedule I', one each from the class reptilia and mammalia. 2+2+2+2+2=10

[Turn over]