

Roll No.

(01/22-II)

5246

B.Sc. EXAMINATION

(Fifth Semester)

ZOOLOGY

Paper I

Environmental Biology

Time : Three Hours

Maximum Marks : 40

Note : Q. No. 1 is compulsory. Attempt *two* questions from Section A and *two* questions from Section B.

1. (i) Define ecological niche.
- (ii) What are circadian rhythms ?
- (iii) Actively swimming animals are called.....
- (iv) Define altruism. Give *one* example.

- (v) Which of the following is *not* a positive interaction ?
- (a) Commensalism
 - (b) Mutualism
 - (c) Ammensalism
 - (d) Predation.
- (vi) What are ecotones ?
- (vii) What is carrying capacity of environment ?
- (viii) Define the term ammonification.
- (ix) What is 10% law ?
- (x) Who is responsible for the sex of the child, father or mother ? $1 \times 10 = 10$

Section A

2. What is meant by sedimentary cycle ? Describe the Phosphorus *or* Sulphure cycle. $7\frac{1}{2}$
3. (a) List characteristics of an ecosystem. $2\frac{1}{2}$
- (b) Write notes on the following :
- (i) Habitat
 - (ii) Ecological equivalents. $2\frac{1}{2}, 2\frac{1}{2}$

4. (a) Explain Bergmann's rule by giving suitable example. $2\frac{1}{2}$
- (b) Discuss the influence of light on animals. 5
5. (a) Describe an grazing food chain. $3\frac{1}{2}$
- (b) Describe ecological pyramid of number in parasitic food chain. 4

Section B

6. What is Pollution ? Describe air pollution and its control measures. $7\frac{1}{2}$
7. Write notes on the following : $2\frac{1}{2}, 2\frac{1}{2}, 2\frac{1}{2}$
- (a) Amniocentasis
- (b) Growth Curve
- (c) Human population growth in India.
8. (a) Differentiate between National Park and Wildlife Sanctuary. 2

- (b) Explain, how birds are stimulated for migration ? $2\frac{1}{2}$
- (c) Describe parental care in the marsupials. 3
9. (a) Define ecological succession. What is pioneer community ? 2
- (b) Explain 'Competition Exclusion Principle'. 2
- (c) Define proto-operation and mutualism. Explain the phenomena taking *two* examples of each. $3\frac{1}{2}$