

(6 pages)

Reg. No. :

Code No. : 6427

Sub. Code : HZOE 21

M.Sc. (CBCS) DEGREE EXAMINATION, APRIL 2016.

Second Semester

Zoology

Elective – POPULATION ECOLOGY AND ANIMAL
BEHAVIOR

(For those who joined in July 2012 onwards)

Time : Three hours

Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer :

1. The type of stratification noticed in pond community is
- (a) Vertical (b) Horizontal
- (c) Peripheral (d) All of these

2. Dominant groups found in grass land community is
- (a) Shrubs (b) Trees
- (c) Grasses (d) Ants
3. The inward migration of population dispersion is referred as
- (a) Migration (b) Emigration
- (c) Immigration (d) Both (a) and (b)
4. The causative factor of diapause is
- (a) Temperature
- (b) Light
- (c) Non-availability of food
- (d) All of them
5. Pick out the permanent commensalisms from the followings
- (a) Shark and sucker fish
- (b) Lichen
- (c) Flagellates inside the body of termites
- (d) Both (a) and (b)
6. Functional status of an organism in its community is referred as
- (a) Habitat (b) Niche
- (c) Shelter (d) Edge effect

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7. The phenomenon where the speed or velocity of locomotion of organism influenced by a stimulus is called

- (a) Taxis (b) Kinesis
(c) Reflexes (d) Tropism

8. The process by which the behaviour of an animal affects the behavior of others is referred as

- (a) Aggression (b) Altruism
(c) Home range (d) Communication

9. The main function of courtship is

- (a) Mate finding
(b) Persuasion
(c) Reproductive isolation
(d) All of them

10. Typical monogamy is seen in the case of

- (a) Eagles (b) Foxes
(c) Jacana (d) Both (a) and (b)

PART B — ($5 \times 5 = 25$ marks)

Answer ALL questions, choosing either (a) or (b).

Each answer should not exceed 250 words.

11. (a) Evaluate the components and uses of life tables.

Or

(b) Define ecotone and explain the phenomenon of edge effect.

12. (a) Briefly present any two theories of ageing.

Or

(b) Write an account on population dispersion.

13. (a) Analyse the niche concept and comment on its types.

Or

(b) What is Gause exclusion principle? Explain it with an example.

14. (a) What is communication? How are chemical signals passed in animals?

Or

(b) Write an account on anti predator defence.



15. (a) Schooling in fishes is the classical example for social behavior – Justify.

Or

- (b) Write an account on sexual selection and its importances.

PART C — (5 × 8 = 40 marks)

Answer ALL questions, choosing either (a) or (b).

Each answer should not exceed 600 words.

16. (a) Write down the characteristics of 'S' shape and 'J' shape growth curves.

Or

- (b) Highlight the characteristics of community.

17. (a) Explain the allocation of energy for somatic and reproductive growth.

Or

- (b) Trace the evolution of life history traits.

18. (a) Discuss the various components of animal association with example.

Or

- (b) Evaluate the intrinsic and extrinsic factors of population.

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19. (a) Analyse the neural and hormonal control of animal behavior.

Or

- (b) Interpret the types of animal behavior with example.

20. (a) Critically evaluate the parental care exhibited by amphibians.

Or

- (b) Write an essay on mating system and courtship behavior.
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