ST. JOSEPH'S COLLEGE (AUTONOMOUS), BANGALORE-27
B.Sc., ZOOLOGY –V SEMESTER
SEMESTER EXAMINATION- October 2019
ZO 5215- ECOLOGY, WILDLIFE AND ANIMAL BEHAVIOUR

Time: 2-1/2hrs   **Maximum marks: 70**

This question paper has 2 printed pages and 3 parts

PART A

I.   **Answer the following questions. Each question carries 1 mark**   **15X1=15**

1.   The organisms which move across the water current are called as _____.

a) Neuston   b) Benthos   c) Plankton   d) Nekton

2.   _____ of Notonecta and Corixa are same.

a) Niche   b) Habitat   c) Feeding   d) Predators

3.   _____ is a sessile animal in the freshwater biota.

a) Clam   b) Chironomous   c) Spongilla   d) Snail

4.   _____ larvae migrate from its breeding ground to freshwater to become adult.

a) Tornaria   b) Ammocoetes   c) Leptocephalus   d) Planula

5.   The utilization of energy at different trophic levels is best explained by _____

energy flow model.

a) Universal   b) Z-shaped c) Y-shaped   d)   Single channel

6.   Most hazardous metal pollutant in automobile exhaust is _____.

a) Lead   b) Mercury   c) Zinc   d) Copper

7.   Bioaccumulation of cadmium does not occur in _____.

a) Kidneys   b) Liver   c) Animal fat   d) Tobacco

8.   _____ does not cause biomagnifications through food chain and food web.

a) Heavy metals   b) DDT   c) Polychlorinated biphenyls d) Copper

9.   _____ is the first national park established in India.

a) Kaziranga   b) Jim Corbett c) Sunderbans   d) Nanda Devi

10.   Chipko movement started in Chamoli district.

(True/ False).

11.   A biodiversity hotspot is a region with high level of _____ species.

a) Rare   b) Endangered   c) Threatened   d) All of these

12. The simplest known circadian rhythm is exhibited by _____.

a) Cyanobacteria   b) Arabidopsis   c) Catfish   d) Zooplankton

13. _____ uses scent of excreta as a means of communication.

a) Crickets   b) Sea star   c) Rabbit   d) Gypsy moth

14. In _____ behaviour, animals try to ignore repeated stimulus.

a) Imprinting   b) Habituation   c) Instinct   d) Motivation

15. _____ is an environmental stimulus that entrains a biological clock.

a) Geotaxis   b) Lightning   c) Zeitgeber   d) None of these

PART B

II. Answer any FIVE questions. Each question carries 5 marks   **5X5=25**

16. What are the characteristics of energy flow in an ecosystem?

17. Differentiate between grazing and detritus food chains.

18. What is cyclomorphosis? Explain with suitable examples.

19. 'Polluted water sometimes smells like rotten eggs'. Give reasons.

20. Briefly explain: **a)** Factors which regulate population growth. **b)** If the population of 50 amoebae in a pool is increased to 150 after an hour, calculate the growth rate.

21. Write a short note on ex-situ conservation of wildlife.

22. With suitable examples, explain operant conditioning.

PART C

III. Answer any THREE questions. Each question carries 10 marks   **10X3=30**

23. Explain the zonation of a marine ecosystem with suitable illustrations and examples.

24. Define Productivity. Explain the various methods involved in measurement of primary productivity in an ecosystem.

25. Give a detailed account of positive animal associations using suitable examples.

26. Describe the components of a pond ecosystem with suitable examples.

27. Explain the significance of sound communication in animals.