

(7 pages)

Reg. No. :

Code No. : 8425

Sub. Code : HZOM 22

M.Sc. (CBCS) DEGREE EXAMINATION, APRIL 2014.

Second Semester

Zoology

ENVIRONMENTAL BIOLOGY

(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. Micro consumer are popularly known as _____

- (a) Primary consumer
- (b) Secondary consumer
- (c) Tertiary consumer
- (d) Decomposers

2. The energy used for all plant life processes is derived from solar radiations. Solar radiations travel through the space in the form of _____

- (a) Heat
- (b) Energy
- (c) Waves
- (d) Water

3. Population density can only decreased by _____

- (a) Natality
- (b) Mortality
- (c) Crude density
- (d) All of these

4. Group of individuals of any kind of organism is called _____

- (a) Community
- (b) Mixed population
- (c) Population
- (d) Habitat niche

5. Animals and plants are best protected in _____

- (a) Sanctuaries
- (b) Zoos
- (c) National parks
- (d) Botanical gardens

6. The first national park of India is _____

- (a) Satpura national park
- (b) Panna national park
- (c) Kaziranga national park
- (d) Jim Corbet national park



7. Which of the following was responsible for minimata epidemic that caused several deaths in Japan

- (a) Lead (b) Mercury
(c) Cadmium (d) All the above

8. Pollutants like PAN and O₃ cause —————

- (a) Respiratory distress
(b) Irritation of eye
(c) Irritation of nose and throat
(d) All the above

9. PAN stands for —————

- (a) Prime Added Nature
(b) Peroxy Acetyl Nitrate
(c) Principle of Advanced Nations
(d) Presume Additional Noise

10. The term "Hot spot" for high diversity ecological region was coined by —————

- (a) Odum (b) Stanley
(c) Myers (d) IUCN

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PART B — (5 × 5 = 25 marks)

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

Each answer should not exceed 250 words.

11. (a) What are life's support systems and why may they be considered an artificial classification scheme?

Or

(b) Write short notes on biogeochemical cycles.

12. (a) Differentiate between human health system in rural area.

Or

(b) Write an account on term "Human rights in India".

13. (a) Describe the values of identifying hotspots of diversity.

Or

(b) Write an brief note on following term with suitable examples

- (i) Endangered species
(ii) Extinct species.

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14. (a) Differentiate between degradable and non-degradable pollutants.

Or

- (b) State one advantage and one disadvantage associated with nuclear fusion.

15. (a) Write short notes on energy resources.

Or

- (b) Write an essay on how can mineral resources be conserved.

PART C — (5 × 8 = 40 marks)

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

Each answer should not exceed 600 words.

16. (a) How might nutrient cycling be affected by stressed ecosystems? Give an example of this effect.

Or

- (b) Describe the process of cultural eutrophication. Explain how more nutrients may not always be good for a lake.

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17. (a) Enumerate the effects of an increasing population on the environment.

Or

- (b) Describe in Human rights and value of education in AIDS, women and child welfare.

18. (a) Explain how the value of biodiversity may be both an economic and biological determination.

Or

- (b) List out the Wild life sanctuaries, national parks and biosphere reserves and protection laws in Indian biodiversity.

19. (a) Write an account on various types of pollution with suitable example.

Or

- (b) Identify one secondary pollutant that is a component of photochemical smog and describe one chemical transformation that occurs in the natural nitrogen cycle and discuss the importance of that transformation to an ecosystem.

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20. (a) Mention the renewable resources with suitable examples and describe how they are depleted?

Or

- (b) Describe the ecological benefits provided by intact forest ecosystems and explain the ecological and economic importance of forest ecosystem.
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