

2017

**ZOOLOGY – HONOURS**

**Sixth Paper**

**(Unit – II)**

**Full Marks – 50**

*The figures in the margin indicate full marks*

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

Answer **Question No. 1** and **any four** from the rest

1. Answer **any five** questions from the following : 2×5

(a) What is Ramsar site ? Name the only Ramsar site present in West Bengal.

(b) What is Biotic potential ?

(c) What do you mean by solar flux and solar constant ?

(d) What do you mean by Ecological Efficiency ?

(e) What is Kyoto Protocol ?

(f) Define 'Life Table'.

(g) Distinguish between closed and open community.

(h) Distinguish between ex situ and in situ conservation.

(i) Give one example each from Schedule I Part I and Schedule I Part

III of Indian Wildlife Protection Act.

2. (a) Define productivity. Why wetlands are highly productive ?

(b) What do you mean by character displacement ? Give one example.

(c) With examples define point source pollutant and non-point source pollutant. (2+3)+(2+1)+2

3. (a) Explain Genetic diversity and Ecosystem diversity.

(b) How is photochemical smog formed from atmospheric pollution ?

(c) Mention the role of light as an abiotic ecological factor with reference to animal metabolism and locomotion.

(d) What is ozone depletion ? 3+2+4+1

[ Turn Over ]

4. (a) What do you mean by megadiversity countries ? Comment on biodiversity conservation through FREEP in India.

(b) Distinguish between National Park and Sanctuary.

(c) Distinguish between autotrophic and heterotrophic succession.

(d) Which of the following community is more (i) rich and (ii) diverse and why ?

	Number of Individuals	
	Species X	Species Y
Community A	50	50
Community B	99	1

$$(1+2)+2+2+(1\frac{1}{2}+1\frac{1}{2})$$

5. (a) Distinguish between flagship and umbrella species.

(b) Discuss Density-Dependent regulation of populations.

(c) Mention two criteria for assigning biodiversity hotspot status of an area.

(d) Ecosystems are capable of self maintenance and self regulation – Explain.

(e) State the significance of EIA.

$$2+2+2+2+2$$

6. (a) Draw the pyramid of the following populations, comment on their nature and give example in each type —

Ages	Populations		
	A	B	C
Pre-Reproductive period	900	900	300
Reproductive period	600	800	800
Post-Reproductive period	300	300	400

(b) Distinguish between r and k selected species.

$$6+4$$

7. (a) What is hyperparasitism ?

(b) What do you mean by eutrophication ?

(c) Mention two objectives of project tiger. Name two sites of project tiger in West Bengal.

(d) Suggest how noise pollution can be reduced.

$$2+2+(2+1)+3$$

8. Write explanatory notes on (*any two*) :

$$5 \times 2$$

(a) Acidification of soil.

(b) Logistic growth curve and Logistic growth rate curve.

(c) Law of thermodynamics and energy flow in ecosystem.

(d) Xerosere and Hydrosere.

(e) IUCN categories of threatened species.