

2014

ZOOLOGY

(Major)

Paper : 2.2

Full Marks : 60

Time : 2½ hours

*The figures in the margin indicate full marks
for the questions*

1. Choose the correct answer : 1×7=7

- (a) 20 percent / 30 percent /
40 percent / 50 percent of the
assimilated energy is used in
respiration by herbivores.
- (b) Eutrophication causes decrease in
dissolved O_2 / dissolved salts /
dissolved CO_2 / None.
- (c) NO / NO_2 / SO_2 / PPN is a
secondary pollutant.
- (d) First National Park developed in
India was Gir National Park /
Kaziranga National Park / Corbett
National Park / Annamalai National
Park.

- (e) World heritage sites are recognized by UNESCO / IUCN / UNDP / CITES.
- (f) The base tier of an ecological pyramid represents producers / herbivores / consumers / All.
- (g) World Summit on Sustainable Development (2002) was held in Brazil / Japan / South Africa / Argentina.

2. Distinguish between (any two) : $2 \times 2 = 4$

- (a) Autecology and Synecology
- (b) Conservation and Management of wildlife
- (c) Primary air pollutant and Secondary air pollutant

3. Write short notes on (any two) : $2 \times 2 = 4$

- (a) Ecological efficiency
- (b) Ramsar sites
- (c) Methemoglobinemia

4. Answer the following (any three) : $5 \times 3 = 15$

- (a) Write about Keystone species and their importances in the ecosystem.
- (b) "Air pollution can lead to climate change." Explain.
- (c) What is an ecological pyramid? Construct an ideal pyramid of energy where 1000000 joules of sunlight is available. Label all the trophic levels.
- (d) What is deforestation? What are its impacts on wildlife populations?
- (e) Write a note on biological control of water pollution.

5. What does ecological energetics mean? Explain the flow of energy through the different trophic structures of an ecosystem with proper diagram. $2 + (6 + 2) = 10$

Or

What do you mean by thermal pollution of water? Explain its effect on aquatic life. Also describe the control strategies against thermal pollution. $2 + 5 + 3 = 10$

(4)

6. What is wildlife management? Describe the management practices prevalent in the protected areas of Assam. 2+8=10

Or

What is the difference between *in situ* and *ex situ* conservation strategies? Explain how establishment of National Park and development of cryopreservation techniques have helped in conservation of different animal species. 2+4+4=10

7. What is a niche? What are the different types of niches? Describe with examples. What are the different factors that effect the range of a niche? 2+5+3=10
