2020

ZOOLOGY (Honours)

Paper : ZOOL-H-DC-6-T

(Ecology and Conservation Biology)

(CBCS)

Full Marks : 25 Time : Two Hours

The figures in the margin indicate full marks.
Candidates are required to give their answers in their own words as far as practicable.

1. Answer any *eight* questions from the following : ½×8=4

Group - A

[Ecology]

(Answer any *four* questions)

(a) In an ecosystem, the energy flow is always _____. (unidirectional / bidirectional).

(b) Which of the following requires maximum energy? (Choose the correct alternative)

(i) Primary producer

(ii) Primary consumer

(iii) Decomposer

(c) The natural place of an organism or community is known as _____ (habitat / biome).

(d) Can plankton swim freely in the lotic water? (Yes / No)

(e) Species Ecology is synonym with which type of ecology (Autecology or synecology)?

(f) The "boom and bust" cycle is found in _____ population growth model (J-shaped / S-shaped).

Group - B

[Conservation Biology]

(Answer any *four* questions)

(g) What is the IUCN status of the Asiatic Lion?

(h) Sacred Grove is an example of _____ conservation (ex-situ / in-situ).

(i) Write the full form of IUCN.

(j) The Kulik forest near Raiganj in Uttar Dinajpur (West Bengal) was declared a Wildlife Sanctuary in the year _____. (Fill in the blank)

(k) Kaziranga is famous for _____ conservation. (Fill in the blank)

(l) _____ floated the concept of biodiversity hotspots. (Fill in the blank)

2. Answer any *two* questions from the following : 2½×2=5

Group - A

[Ecology]

(Answer any *one* question)

(a) What is "climax" in ecological succession? Give an example.

(b) Define the concept of ecotone with an example.

Group - B

[Conservation Biology]

(Answer any *one* question)

(c) State the differences between in-situ and ex-situ conservation techniques.

(d) Write on the principal causes of human-wildlife conflict.

3. Answer any *four* questions from the following : 4×4=16

Group - A

[Ecology]

(Answer any *two* questions)

(a) Give an account of the concept of "niche" with special reference to its ecological significance.

(b) Write a short note on "energy flow" in an ecosystem.

(c) State the difference between potential and realized natality.

(d) Write a short note on nitrogen cycle.

Group - B

[Conservation Biology]

(Answer any *two* questions)

(e) Write a short note on depletion of wildlife in India.

(f) Write a short note on "Project Tiger".

(g) Write a short note on biodiversity hotspots. Comment on the importance of any one hotspot in India. 2+2=4

(h) Write a short note on countries with mega-biodiversity.