

Rani Rashmoni Green University
Environmental Science
COURSE CODE GEST-14 A
Semester I
End Term Examination 2024

Full Marks: 40

Time: 02hr.

Answer at least three (3) questions from each unit and two (2) from any unit of your choice.

All the questions carry equal marks (5)

Unit 1
(Wildlife Management)

1. Define endemism and how endemic plants are different from endangered plant. Give two example each of endangered and endemic plant in India.

2+1+2 =5

2. Write down the differences between Wildlife Sanctuary, Biosphere Reserve, and National Park. How many Biosphere Reserves and National Parks are in India?

3+2=5

3. Name one National Park situated in the following states with example of any two vertebrate fauna in each of them:

a. Gujarat b. West Bengal c. Madhya Pradesh d. Uttarakhand e. Assam

1 × 5=5

4. Differentiate *in situ* and *ex situ* conservation? Name the different modes of *in situ* conservation.

2+3=5

5. Define JFM. What are the three main zones of biosphere reserve?

1+4=5

6. Write short notes on any two

2.5+2.5=5

- a) Cryopreservation
- b) Bioprospecting
- c) Age and area hypothesis
- d) Palaeoendemic

UNIT 2
(Evolutionary Biology)

1. Describe the conditions necessary for natural selection to occur. How do genes, mutations, and adaptations play a role in this process?

2+3=5

2. Explain evolution by considering homologous and analogous organs as evidences. What is living fossil? Give a reptilian example living fossil.

3+2=5

3. What do you mean by adaptive radiation? Give examples of convergent and divergent evolution. What is coevolution?

2+2+1=5

4. Mention 5 evolutionary factors that may bring about changes in gene frequency. What is bottleneck effect?

3+2=5

5. In a human population of 200 the distribution of blood groups are as follows

A-17

B-52

AB-3

O-128

Assuming the population is in Hardy-Weinberg equilibrium what are the allele frequencies?

5

6. Write short notes on any two

2.5+2.5=5

a) Genetic drift

b) Allopatric species

c) Darwinian finches

d) Biological reasons of extinction