

B.Sc. Semester - 5 (Remedial) (CBCS) Examination
March/April-2022(Old Course)
ECOLOGY (CORE)

Time: 2:30 Hours**Marks: 70****Instructions:**

1. All questions are compulsory.
2. Figures to the right indicate marks.

Q.1(A) Answer the following questions (Any 1 out of 2) (07)

- 1) What are ecosystem energetics? Describe Y- shaped energy flow model with diagram.
- 2) Describe the abiotic and Biotic components of any stagnant fresh water ecosystem.

Q.1(B) Attempt any one out of two (04)

- 1) Distinguish between: Producers and Consumers.
- 2) Give chart representing basic types of ecosystem with examples and discuss artificial ecosystem.

Q.1(C) Answer the objective type questions (Any 3 out of 5) (03)

- 1) What are artificial ecosystem?
- 2) Name the dominant producers in a deep aquatic ecosystem.
- 3) What is meant by 10% law?
- 4) Define biogeochemical cycle.
- 5) What is ammonification?

Q.2(A) Answer the following questions (Any 1 out of 2) (07)

- 1) Describe the line and Belt transects methods of studying vegetation.
- 2) Define a biotic community. Explain cover and phonology as a characters used to describe community structure.

Q.2(B) Attempt any one out of two (04)

- 1) Explain species diversity and keystone species.
- 2) Write note on: Stratification as qualitative characteristics.

Q.2(C) Answer the objective type questions (Any 3 out of 5) (03)

- 1) Define Frequency.
- 2) Define basal area of species..
- 3) Define: Abundance
- 4) In which type of life form the perennating buds remain under water?
- 5) Give the formula for calculation of Density.

Q.3(A) Answer the following questions (Any 1 out of 2) (07)

- 1) Discuss the number pyramid in Grassland, ponds and tree ecosystem.
- 2) Give an account of the three sequential stages of a typical hydrosere.

- Q.3(B) **Attempt any one out of two** (04)
- 1) Distinguish between: Primary succession and Secondary succession
 - 2) Explain: Population dispersal and population dispersion.
- Q.3(C) **Answer the objective type questions (Any 3 out of 5)** (03)
- 1) Write the definition of plant succession.
 - 2) Write the name of three types of niches.
 - 3) Define: Climax community
 - 4) In which ecosystem pyramid of numbers is inverted?
 - 5) What is Emigration?
- Q.4(A) **Answer the following questions (Any 1 out of 2)** (07)
- 1) Describe Law of tolerance with Graph
 - 2) Explain: Biological clock.
- Q.4(B) **Attempt any one out of two** (04)
- 1) Explain: Ecological amplitude
 - 2) Describe: Liebig's law of minimum.
- Q.4(C) **Answer the objective type questions (Any 3 out of 5)** (03)
- 1) What are limiting factors?
 - 2) What is Ecology?
 - 3) Define: Seed output.
 - 4) The study of individual species of all stages of lifecycle in relation to environment is called _____.
 - 5) By which common test seed viability is tested?
- Q.5(A) **Answer the following questions (Any 1 out of 2)** (07)
- 1) Explain: Composition of GPS.
 - 2) Write issues involved in enforcement of environmental legislations.
- Q.5(B) **Attempt any one out of two** (04)
- 1) Discuss the problems in effective implementation of environmental law in India.
 - 2) Explain non-formal environmental education in India.
- Q.5 (C) **Answer the objective type questions (Any 3 out of 5)** (03)
- 1) Give full form of EIA.
 - 2) What is Environmental education?
 - 3) What is full form of GPS?
 - 4) Function of pollution control boards.
 - 5) In which year the water act enacted?
