

B.Sc. Semester - 5 (CBCS) Examination
Oct/Nov. - 2023(Old Course)
ECOLOGY (CORE)

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

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

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- Que-1(A) Answer in details: (Attempt any one) (07)
1. Describe biotic and abiotic components of forest ecosystem.
 2. What is an ecosystem? Discuss single channel energy flow model.
- Que-1(B) Answer in brief: (Attempt any one) (04)
1. What are consumers? Discuss types of consumers.
 2. Distinguish between: GPP and NPP
- Que-1(C) Answer in very short: (Any three) (03)
1. What is standing state?
 2. What percentage of energy transferred to successive trophic level?
 3. Name the subtypes of limnic ecosystem.
 4. Give the term: Organism have ability to break down dead bodies in to smaller particles.
 5. True or false: $GPP=R$ (Respiratory loss), there is no storage of energy.
- Que-2(A) Answer in details: (Attempt any one) (07)
1. Describe the sampling unit methods of studying plant communities.
 2. What are life forms? Discuss the Raunkiaers life form.
- Que-2(B) Answer in brief: (Attempt any one) (04)
1. What is fidelity? Discuss its classes
 2. Write notes on: Abundance and density
- Que-2(C) Answer in very short: (Any three) (03)
1. Give the term: Distribution of crowns of different plant species in well definite layers or story's.
 2. Name the transition zone between two communities.
 3. Give the formula for the calculation of basal area of species.
 4. Which frequency range is belongs to class-A in Raunkiar frequency class?
 5. In which type of life form, the perennating buds remain under water?
- Que-3(A) Answer in details: (Attempt any one) (07)
1. Discuss the pyramid of numbers in different ecosystem.
 2. Give an account of the hydrosere.
- Que-3(B) Answer in brief: (Attempt any one) (04)
1. Explain: Population dispersal and population dispersion.
 2. Discuss the causes of plant succession.
- Que-3(C) Answer in very short: (Any three) (03)
1. What is Emigration?
 2. Define: Natality
 3. In which succession lichens are pioneer vegetation?
 4. Name types of succession based on nutritional status of dominant community.
 5. Give the term: The establishment of a species in the bare area immediately after invasion

- Que-4(A) Answer in details: (Attempt any one) (07)
1. Discuss: Shelford's law of tolerance
 2. Explain: Biological clock
- Que-4(B) Answer in brief: (Attempt any one) (04)
1. Write a short note on: Liebig's law of minimum
 2. Describe the Ecological amplitude
- Que-4(C) Answer in very short: (Any three) (03)
1. What are limiting factors?
 2. Fill up the blank: The study of individual species of all stages of life cycle in relation to environment is called.....
 3. What do you mean by the term stenothermal?
 4. What is a species?
 5. Give the term: A form of plant modified by its habitat, the modification is induced by environment.
- Que-5(A) Answer in details: (Any one) (07)
1. Describe: Structure of GPS
 2. Write short account of Indian laws enacted from time to time for environmental law in India.
- Que-5(B) Answer in brief: (Any one) (04)
1. Explain various levels of formal education for environment in India.
 2. Discuss the problems in effective implementation of environmental law in India.
- Que-5(C) Answer in very short: (Any three) (03)
1. Fill in the blank: Educating the people on environment and its impact is called.....
 2. Name the act to protect and improve the environment on all matters connected with it.
 3. Name the two types of environment education.
 4. Name the Centre of excellence of environment science and management in Gujarat.
 5. What is GPS?
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