

B.Sc. Semester - 5 (CBCS) Examination
Oct/Nov. - 2021(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 question. (Any One) (07)

- (1) Define ecosystem? Discuss energy flow in ecosystem with single channel model.
- (2) Explain: Abiotic and biotic components of forest ecosystem studied by you.

Q.1 (B) Answer the following question. (Any One) (04)

- (1) What is productivity? Describe primary productivity.
- (2) Write notes on: producer.

Q.1 (C) Objective type question. (Any Three) (03)

- (1) Fill in the blank: Total energy fixed by an ecosystem is _____
- (2) Name the trophic level occupied by tertiary consumers.
- (3) Name the Sub-types of limnic ecosystem.
- (4) Give one reason: All the primary productivity is not available to a herbivore.
- (5) What will happen to an ecosystem if all producers are removed?

Q.2 (A) Answer the following question. (Any One) (07)

- (1) Describe quantitative characters of community.
- (2) Explain physiognomic methods of community studies.

Q.2 (B) Answer the following question. (Any One) (04)

- (1) Describe quadrat method.
- (2) Explain fidelity.

Q.2 (C) Objective type question. (Any Three) (03)

- (1) Complete the statement: Events of phenology are shown by _____
- (2) Define: Frequency.
- (3) Give ecological term: The array of percentage of all life form groups in a Habitat is called _____
- (4) Give the formula to measure abundance in plant community.
- (5) Which characteristics of plant community show through photosociological methods?

Q.3 (A) Answer the following question. (Any One) (07)

- (1) Describe ecological pyramids.
- (2) Explain causes and process of plant succession.

Q.3 (B) Answer the following question. (Any One) (04)

- (1) Describe in brief about population size and density.
- (2) Distinguish between: Primary succession and Secondary succession.

Q.3 (C) Objective type question. (Any Three) (03)

- (1) Which type of ecological pyramid is always upright?
- (2) Name two processes which influence population density.
- (3) Fill in the blank: Succession initiating on Rocks is known as _____
- (4) Give ecological term: Spatial pattern of individuals in a population relative to one another.
- (5) Give names of different types of succession based on nutritional status of dominant organisms.

Q.4 (A) Answer the following question. (Any One) (07)

- (1) Explain in detail about Shelford's Law of Tolerance.
- (2) Describe Liebig's Law of minimum.

Q.4 (B) Answer the following question. (Any One) (04)

- (1) Write a short note on seed dormancy and viability of seeds.
- (2) Describe in brief about biological clock.

Q.4 (C) Objective type question. (Any Three) (03)

- (1) By which common test seed viability is tested?
- (2) Give ecological term: Species that tolerate wide range of salinity are called.
- (3) The growth of an organism is dependent on the amount of food stuff that is present in minimum quantity” this was stated by _____
- (4) What is species ecology?
- (5) The life cycle of plant in response to the rhythmic seasonal variations is called _____

Q.5 (A) Answer the following question. (Any One) (07)

- (1) Explain: Composition of GPS.
- (2) Explain: Environmental education in India.

Q.5 (B) Answer the following questions. (Any One) (04)

- (1) Describe: Environmental Laws.
- (2) Describe: Non – formal Environmental education in India.

Q.5 (C) Objective type questions (Any Three) (03)

- (1) What is environmental Education?
- (2) In which year the water act enacted?
- (3) Name two types of pollution control boards.
- (4) Name the three segment of the GPS.
- (5) Give the name of center of excellence in Gujarat established by ministry of Environment and Forest.
