

B.Sc. Semester - 5 (Remedial) (CBCS) Examination
Feb/Mar. -2021 (NEW COURSE)
Ecology (Core)

Time: 1:30 Hours**Marks: 42****Instructions:**

1. Figures to the right indicate marks.
 2. There are five questions in the question paper.
 3. Answer any three of the following questions.
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Q-1(A) Answer in very short:**(04)**

- (i) **Fill in the blank:** The tendency in nature to form wholes that are greater than the sum of through creative evolution is referred as _____.
- (ii) Which instrument is used for the measured relative humidity?
- (iii) **Give the term:** An obligatory association benefiting both the population.
- (iv) **Define:** Sciophyte

Q-1(B) Answer in brief (any one):**(03)**

- (i) **Explain:** Liebig's law of minimum
- (ii) **Write notes on:** Effect of light on plants.

Q-1(C) Answer in detail (Any one):**(07)**

- (i) **Explain:** Biological clock.
- (ii) Discuss the precipitation (Rainfall) as a climatic factor.

Q-2(A) Answer in very short:**(04)**

- (i) **Give the term:** A status of ecotone having more number of species than any of the two adjacent communities.
- (ii) Which frequency (percentage) range is belong to class-C in Raunkier(1934) Frequency classes?
- (iii) Name the type of life form which is growing in marshy area and perennating buds remain under the soil surface.
- (iv) **Complete the statement:** Relative density + Relative dominance + Relative frequencies= _____.

Q-2(B) Answer in brief (Any one):**(03)**

- (i) **Explain:** Species stratification in forest.
- (ii) **Write note on:** Biological spectrum.

Q-2(C) Answer in detail (Any one):**(07)**

- (i) What is sampling units? Discuss the various sampling methods.
- (ii) **Write note on:** Synthetic characters of plant community.

Q-3(A) Answer in very short:**(04)**

- (i) **Fill in the blank:** If photosynthetic organism forms the dominant community, the succession is called _____ succession.
- (ii) In which process of succession, the seed, the spores or other propagules of the species Reach the bare area?
- (iii) **Give the term:** The ability of population to increase under ideal environmental conditions.
- (iv) What is ecological equivalents?

Q-3(B) Answer in brief (Any one): (03)

- (i) Discuss the trends of plants succession.
- (ii) What is age structure? Explain age pyramid.

Q-3(C) Answer in detail (Any one): (07)

- (i) Give account of the sequential stages of a typical Xerosere.
- (ii) What is ecological niche? Discuss the Trophic niche with examples.

Q-4(A) Answer in very short: (04)

- (i) What is standing crop?
- (ii) **True or false:** In ecosystem the energy flow is always unidirectional.
- (iii) Which type of pyramids can never be inverted in natural ecosystem?
- (iv) **Give the term:** The rate of formation of new organic matter by consumer.

Q-4(B) Answer in brief (Any one): (03)

- (i) **Explain:** Pyramids of Biomass in pond and grassland.
- (ii) **Write notes on:** Decomposer as a biotic component of ecosystem.

Q-4(C) Answer in detail (Any one): (07)

- (i) Discuss the 'Y' shaped energy flow model.
- (ii) **Write notes on:** Productivity of ecosystem.

Q-5(A) Answer in very short: (04)

- (i) **Give the term:** A certain species on which one or more other important species are depending upon for food, reproduction or some other basic need.
- (ii) Name the three level of biodiversity.
- (iii) Enlist the phytogeographical regions in which Alpine forest are found.
- (iv) **Fill in the blank:** The..... diversity of organisms sharing the same habitat or community.

Q-5(B) Answer in brief (Any one): (03)

- (i) **Explain:** Island of Andaman and Nicobar as phytogeographic region.
- (ii) **Discuss:** Beta and Gamma diversity.

Q-5(C) Answer in detail (Any one): (07)

- (i) **Writes notes on:** Keystone species.
- (ii) **Explain:** Sanctuaries as Biodiversity conservation
