



PAR-003-001511 Seat No. _____

B. Sc. (Sem. V) (CBCS) Examination

October / November - 2018

Botany : B-503

(Ecology) (Old Course)

Faculty Code : 003

Subject Code : 001511

Time : $2\frac{1}{2}$ Hours]

[Total Marks : 70

- Instructions :** (1) Write answers of all questions in main answer sheet.
- (2) Draw neat and labelled diagrams wherever necessary.
- (3) Figures to the right side indicate full marks for the questions.

- 1 Write short answer : 20
- (1) What is Autecology?
 - (2) Pyramid of energy is always _____ in shape.
 - (3) What is pyramid of numbers?
 - (4) The concept that "Population tends to increase geometrically while food supply increase arithmetically" was put forward by _____.
 - (5) Give full form of EPA.
 - (6) Energy flow in ecosystem is _____.
 - (7) What is MAB?
 - (8) The term Ecology was coined by _____.
 - (9) The source of energy in an ecosystem is _____.
 - (10) Niche of a species is _____.
 - (11) The most abundant element present in the plant is _____.

- (12) What is the full form of UNESCO?
- (13) What is population?
- (14) The transition zone between two or more diverse communities where abundance of organism is more. It is called _____.
- (15) Raunkiaer's life form method is a _____.
- (16) Organism gradually occupies a site, alter its ecological conditions and are eventually replaced by other organism is called _____.
- (17) Mention -True or False :-A population is said to be stable when death rate and growth rate are equal.
- (18) Which part of the world has a high density of organism?
- (19) What is Ecology?
- (20) The order of basic processes involved in succession is Nudation Competition and Co-action Reaction - Stabilization – true or false.

2 (a) Answer in short : (any **three**) **6**

- (1) List out the characteristics of Population.
- (2) What is biological clock?
- (3) Describe the two causes of Plant succession.
- (4) Write notes on: Shelford's law of tolerance.
- (5) Give outline chart of types of ecosystems.
- (6) Define : Vegetation and flora

(b) Answer in Brief : (any **three**) **9**

- (1) Explain: pyramids of numbers in grassland and pond ecosystem.
- (2) Write note on Phenology.
- (3) Explain: primary production.
- (4) Discuss the causes of succession.
- (5) Give the short note on GPS.
- (6) Explain: Principle of limiting factor.

- (c) Answer in detail : (any **two**) **10**
- (1) Write note on Ecological Pyramids.
 - (2) Describe the single channel energy flow model.
 - (3) Discuss the principle of limiting factors.
 - (4) Give location, climatic factor, plant life of Tundra biome.
 - (5) Explain : Age distribution in population.
- 3** (a) Answer in short : (any **three**) **6**
- (1) Explain : Secondary productivity.
 - (2) Write note on : Habitat niche.
 - (3) Write note on size and density.
 - (4) Give formula for calculation of abundance
 - (5) Explain the competition as a part of community character.
 - (6) Discuss : Non-formal environmental education.
- (b) Answer in Brief : (any **three**) **9**
- (1) Discuss: Conservation as a basic concept of ecology.
 - (2) Write note on Growth form.
 - (3) Explain: Trophic niche.
 - (4) Define: Producers, Consumers and Decomposers
 - (5) What is ecotype?
 - (6) State the Liebig's Law of the minimum.
- (c) Answer in detail : (any **two**) **10**
- (1) Describe single channel energy flow model.
 - (2) Describe various features that characterize a community.
 - (3) Write note on : Biological clock.
 - (4) What are the various legal measures taken in India to protect environment?
 - (5) Discuss the sampling units as a method of study of community.