



RP-003-001511

Seat No. _____

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

February - 2019

Botany : Paper - B-503

(Old Course)

Faculty Code : 003

Subject Code : 001511

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

[Total Marks : 70

- Instructions :** (1) This question paper contains three questions.
(2) All questions are compulsory. Write answers of all the questions in main answer sheet.
(3) Draw neat and labelled diagram wherever necessary
(4) Figures to the right side indicate full marks for the questions

1 Objective type questions : 20

- (1) Give the second law of thermodynamics.
- (2) The term ecology is coined by _____.
- (3) A population said to be stable when _____.
- (4) Which frequency (percentage) range is belongs to class-B in Raunkiaer (1934) frequency classes?
- (5) The Sun's energy is fixed in the world by _____.
- (6) If the number of each species is counted, the quadrate is called : _____.
- (7) Give the name and the number of Basic types of succession.
- (8) How many percentage Energy is transferred from one trophic level to another?
- (9) Give the full form of UNESCO.
- (10) Vitality of plants depends upon _____ of species.

- (11) According to Raunkiaer life form, explain the therophytes.
- (12) By which equation we can find the reproductive capacity of any plant?
- (13) Explain the term - Ecological equivalents.
- (14) The concept of ecological pyramids was given by _____
- (15) The centre of excellence scheme was started by ministry in _____ to strengthen awareness of environmental science and management.
- (16) In _____ buds are situated close to the ground surface.
- (17) Where are Taiga found in India?
- (18) What is Population dynamics?
- (19) Write the names of major types of ecosystems.
- (20) Give full form of EPA.

2 (A) Answer in short : (Any **Three**) **6**

- (1) Write a note on - Natality.
- (2) List out the characteristic of population.
- (3) Write the producers of typical ecosystem.
- (4) Write short note: Ecological niche.
- (5) Explain Gross Primary Production
- (6) Write the Wild life protection Act, Rules - 1973.

(B) Give the Answer : (Any **Three**) **9**

- (1) Discuss the causes of succession.
- (2) Write a note on: GPS.
- (3) Explain: Non-formal environmental education.
- (4) State only the names of any six Act / Rules / Laws for environment protection.
- (5) Explain - Primary productivity.
- (6) Discuss different types of quadrat.

- (C) Answer in detail : (Any **Two**) **10**
- (1) Discuss the principle of limiting factors.
 - (2) Describe single channel energy flow model.
 - (3) Discuss the synthetic character of community.
 - (4) Briefly state the basic concept of ecology.
 - (5) What are the various legal measures taken in India to protect environment ?

- 3** (A) Answer in short : (Any **Three**) **6**
- (1) Write the decomposers of Ecosystem.
 - (2) Explain - ecological efficiency
 - (3) Write a note on - Pyramid of biomass.
 - (4) Draw a flow chart indicating types and sub types of ecosystem.
 - (5) Which abiotic components play role in the structure of ecosystem?
 - (6) Explain - Secondary productivity.

- (B) Give Answers : (Any **Three**) **9**
- (1) Give an account of the different stages of a typical hydrosere.
 - (2) Discuss: Population dispersion.
 - (3) Write a note on: Pyramids of number.
 - (4) Explain: Holism.
 - (5) Explain the theory of population dynamics.
 - (6) Write a note on : Ecesis.

- (C) Answer in detail : (Any **Two**) **10**
- (1) Explain the Y - shaped energy flow model
 - (2) Give an account of the sequential stages of a typical Xerosere.
 - (3) Explain: Man and Biosphere Programme.
 - (4) Explain the Savannah biomes.
 - (5) Describe the structure and components of forest ecosystem.