



PAR-003-1015039

Seat No. _____

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

October / November - 2018

Botany : Paper - B - 503

(Ecology)

Faculty Code : 003

Subject Code : 1015039

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

[Total Marks : 70

- Instructions :** (1) The question paper contains three questions. All are compulsory.
(2) Draw neat and labelled diagram whenever necessary.
(3) Figures to the right indicate marks.

1 Give short answers of the following questions : **20**

- (1) Define term ECOTONE.
- (2) Raunkiaer's life form method is a _____ method which are apply for study of plant community structure.
- (3) In which condition ecosystem is self sustaining ?
- (4) What is succession ?
- (5) Define - Producers.
- (6) What is gross primary productivity ?
- (7) Define - Ecological Efficiency.
- (8) Define - Biome.
- (9) If the number of each species is counted, the quadrat is called _____.
- (10) Define - Ecological Niche.
- (11) Name the three segment of the GPS.
- (12) What is principle of limiting factor ?
- (13) When was the wild life (protection) Act enacted ?
- (14) Give formula to measure abundance in plant community.
- (15) Give the name of three horizontal zones are seen in pond or lake.
- (16) Total energy fixed by an Ecosystem is _____.
- (17) The standing water habitat is called _____.
- (18) What is the full form of EPA ?
- (19) Which type of ecological pyramid is always upright ?
- (20) Write any one name of the plant which occurs in Reed swamp stage ?

- 2** (a) Give answers in short : (any **three**) **6**
- (1) Explain : Natality.
 - (2) Explain : Gross primary production.
 - (3) Describe : Ecotone.
 - (4) Write note on phenology.
 - (5) Explain : Invasion.
 - (6) What are the important feature of Wild Life Act ?
- (b) Give the answer in brief : (any **three**) **9**
- (1) Short note on : Restriction on civilian use of GPS.
 - (2) Discuss : Population dispersion.
 - (3) Write note on : habitat niche.
 - (4) Draw flow chart indicating types and sub types of ecosystem.
 - (5) Define the density in community and give formula for calculation of density.
 - (6) Explain : Savannah biomes.
- (c) Answer in detail : (any **two**) **10**
- (1) Give an account of diversity, dominant, interdependence, ecotone and edge effect as a characteristics of a community.
 - (2) Describe the structure of forest ecosystem.
 - (3) Quadrature as method of ecosystem.
 - (4) Write note on : Biological clock.
 - (5) What are the objective and important features of Wild Life Act ?
- 3** (a) Give answers in short : (any **three**) **6**
- (1) Write notes on : Ecesis.
 - (2) Describe : List count quadrat.
 - (3) Explain : Ecology.
 - (4) Define : Decomposers
 - (5) Write note on : Green peace-an environment organization.
 - (6) What is sin ecology ?

- (b) Give the answer in brief : (any **three**) **9**
- (1) Write a note on : Vertical stratification in a forest community.
 - (2) Causes of succession
 - (3) Discuss : Conservation as a basic concept of ecology.
 - (4) Explain: Non-formal environmental education.
 - (5) Write note on floristic methods of community.
 - (6) Describe : Types of plant succession on the basis of presence or absence of vegetation in the region.
- (c) Describe in detail : (any **two**) **10**
- (1) Write basic concept of GPS.
 - (2) Discuss : Shelford's law of tolerance.
 - (3) Give location, climate factor and plant life of tundra biome.
 - (4) Explain: The single channel energy flow model.
 - (5) Describe the pyramids of numbers in pond ecosystem and tree ecosystems.
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