



JX-003-1015039

Seat No. _____

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

October – 2019

Botany : B - 503

(Ecology) (New Course)

Faculty Code : 003

Subject Code : 1015039

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

[Total Marks : 70

Instructions:

1. This question paper contains five questions. All are compulsory.
2. Draw neat and labelled diagrams wherever necessary.
3. Figures to the right indicate marks.

- 1 (A) Write answer in very short : 4
1. Define word : Ecosystem
 2. What is the difference between lotic and lentic ecosystem ?
 3. Who proposed the term Ecosystem ?
 4. If Mr X drinks butter milk... then which number of his trophic level ?
- (B) Write answer in brief : (Any 1 out of 2) 2
1. Write short note on Abiotic component of ecosystem
 2. Give chart of types of ecosystem.
- (C) Write notes on : (Any 1 out of 2) 3
1. Write short note on Artificial ecosystem
 2. Write short note on macro and micro consumers.
- (D) Write answer in detail : (Any 1 out of 2) 5
1. Describe Y shaped energy flow model
 2. Describe Productivity of ecosystem

- 2** (A) Write answer in very short : **4**
1. Define the word: Community
 2. Give three zone name of deep ponds and lakes
 3. Define the word: Dominant species
 4. What do you mean by Hemicryptophytes
- (B) Write answer in brief : (Any 1 out of 2) **2**
1. Write short note on Physiognomy
 2. Give two types of quadrat name with its mean.
- (C) Write notes on : (Any 1 out of 2) **3**
1. Write a short note on Transect method
 2. Discuss any two synthetic characters of community structure.
- (D) Write answer in detail : (Any 1 out of 2) **5**
1. Describe Raunkier's life form methods
 2. Write down Qualitative characters of community structure.
- 3** (A) Write answer in very short : (Any 1 out of 2) **4**
1. What do you mean by mono-specific population.
 2. Define the word: Natality rate.
 3. What is meant by ecological succession ?
 4. Which pyramid is always found in upright position ?
- (B) Write answer in brief : (Any 1 out of 2) **2**
1. Write a short note on regular dispersion.
 2. Write a short note on trends of succession.
- (C) Write notes on : (Any 1 out of 2) **3**
1. Explain different types of age pyramid.
 2. Explain Causes of succession.
- (D) Write answer in detail : (Any 1 out of 2) **5**
1. Discuss any two types of ecological pyramid.
 2. Describe hydrosere or hydrach succession. (diagram not necessary)

- 4 (A) Write answer in very short : 4
1. Define the word: Phenology.
 2. Who proposed the term Ecological niche ?
 3. Give calculating formula of Average seed output.
 4. What is meant by Biological clock ?
- (B) Write answer in brief : (Any 1 out of 2) 2
1. Write down any three methods for broken seed dormancy.
 2. Give two principles of limiting factors.
- (C) Write notes on : (Any 1 out of 2) 3
1. Draw only diagram of biological clock.
 2. Describe Shelford's law of Tolerance.
- (D) Write answer in detail : (Any 1 out of 2) 5
1. Explain any two aspect, level of ecological niche.
 2. Summarised Autecology level.
- 5 (A) Write answer in very short : 4
1. Give full form of GPS and UNESCO.
 2. Which day is celebrated as the world environment day ?
 3. What is the goal of environmental education ?
 4. Give full form of IUCN and WHO.
- (B) Write answer in brief : (Any 1 out of 2) 2
1. Give two objectives of environmental education.
 2. Write down any two environmental agencies.
- (C) Write notes on : (Any 1 out of 2) : 3
1. Write down any three laws related to forest and wildlife.
 2. Write down any three laws related to water.
- (D) Write answer in detail : (Any 1 out of 2) 5
1. Describe MAB programme.
 2. Explain five uses of GPS for environment application.