

**D-6632**

**M.Sc. (III<sup>rd</sup> Semester) Examination, 2020**

**BOTANY**

**(Principles of Ecology)**

***Time Allowed : Three Hours***

***Maximum Marks : 70***

**SECTION - A**

**Note :** Attempt any ten questions. Each question carries

1 mark.

**10×1=10**

**Q. 1.** Objective type :

- (1) The earth summit held in 1992, was organised at \_\_\_\_\_.
- (2) \_\_\_\_\_ is an agreement to mitigate emission of green-house gases.
- (3) Transition zone between two structurally different ecosystems is called \_\_\_\_\_.

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- (4) The food chain, in which microorganisms break down the energy rich compounds synthesized by producers is \_\_\_\_\_ food chain.
- (5) CITES stands for \_\_\_\_\_.
- (6) The evolution of new species is known as :
  - (a) Succession
  - (b) Development
  - (c) Speciation
  - (d) Adaptation
- (7) Ecological pyramids were developed by :
  - (a) Charles Elton
  - (b) Crick Elton
  - (c) Mark Elton
  - (d) Merc Elton

**(3)**

(8) The rate at which organic matter is stored

after the basic metabolic process is :

- (a) Biomass
- (b) Metabolism
- (c) Net primary productivity
- (d) None

(9) Group of species exploiting a common

resource are called :

- (a) Ecological interactions
- (b) Guilds
- (c) Resource sharing
- (d) Competition

(10) In which process seeds germinate while they

still attached with mother plant ?

**(4)**

(a) Endospermy

(b) Gymnasium

(c) Protoandry

(d) Vivipary

(11) Capability of an organism of survive and

reproduce in a particular environment is

known as :

- (a) Adaptation
- (b) Ecological interactions
- (c) Succession
- (d) Life cycle

(12) Ramsar convention is based on :

- (a) Soil conservation
- (b) Wetland
- (c) Watershed
- (d) Climatic amelioration

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**SECTION - B**

**Note :** Attempt any five questions. Each question carries  
2 marks. **5×2=10**

**Q. 2.** Write notes (very short answer in 25-30 words  
only):

- (1) Environment
- (2) Ecology
- (3) Ecosystem
- (4) Biodiversity
- (5) Producer
- (6) Edge species
- (7) Niche

**SECTION - C**

**Note :** Attempt any five questions. Each question carries  
4 marks. **5×4=20**

**Q. 3.** Write short answer in 250 words :

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- (1) Global warming
- (2) Agricultural pollution
- (3) Life form
- (4) Kyoto Protocol
- (5) Seed
- (6) Climate change
- (7) Seedling ecology

**SECTION - D**

**Note :** Attempt any three questions. Each question  
carries 10 marks. **3×10=30**

**Q. 4.** Write essay type answer with internal choice where  
necessary (more than 500 words) :

- (1) Comments on evolutionary ecology and  
environmental concepts.
- (2) Describe the food chain, food web and energy  
flow in an ecosystem.

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- (3) Explain the ecological succession with suitable diagrams.
- (4) Describe biodiversity conservation under changing climatic context.

**OR**

Describe the various types of environmental pollution with management aspects.

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