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**Y—99—2019**

**FACULTY OF SCIENCE**

**B.Sc. (Second Year) (Fourth Semester) (Regular) EXAMINATION**

**OCTOBER/NOVEMBER, 2019**

**BOTANY**

**Paper IX**

**(Ecology and Environmental Biology)**

**(MCQ & Theory)**

**(Tuesday, 19-11-2019)**

**Time : 2.00 p.m. to 4.00 p.m.**

*Time—2 Hours*

*Maximum Marks—40*

*N.B. :— (i) Attempt all questions.*

*(ii) All questions carry equal marks.*

*(iii) Illustrate your answer with suitable diagrams.*

**MCQ**

1. Multiple Choice Questions : 10

(i) The term ecosystem was coined by.....

(a) Strasburger

(b) Hanstein

(c) A.G. Tansley

(d) Odum

(ii) The outer most layer of atmosphere is.....

(a) Troposphere

(b) Thermosphere

(c) Exosphere

(d) Mesosphere

(iii) The plants growing in saline soil are called as.....

(a) hydrophytes

(b) halophytes

(c) xerophytes

(d) None of these

(iv) Hydrilla and Nymphaea are examples of .....

(a) xerophytes

(b) halophytes

(c) hydrophytes

(d) None of these

P.T.O.

- (v) Well developed root system, thick cuticle and sunken stomata are found in.....
- (a) xerophytes (b) halophytes  
(c) hydrophytes (d) None of these
- (vi) The relationship where two populations complete each other for same resources in the habitat is.....
- (a) Neutralism (b) Competition  
(c) Mutualism (d) None of these
- (vii) The plants having perennating buds on under ground plant body are.....
- (a) Chamaephytes (b) Cryptophytes  
(c) Therophytes (d) None of these
- (viii) The conversion of amino acids and proteins into ammonia is called as.....
- (a) ammonification (b) nitrogen fixation  
(c) nitrification (d) denitrification
- (ix) The causes of soil pollution are.....
- (a) Urbanization (b) Industrialization  
(c) Population increase (d) All of these
- (x) The chipko movement was initiated by.....
- (a) Medha Patkar (b) Sunderlal Bahuguna  
(c) Rajendra Singh (d) Anna Hajare.

### Theory

2. What are ecological factors ? Describe light and temperature as ecological factors.

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Or

Write notes on :

- (a) Soil profile
- (b) Hydrilla stem.

3. What are xerophytes ? Describe morphological and anatomical adaptations in xerophytes. 10

Or

Write notes on :

- (a) Pond ecosystem
- (b) Pyramid of energy.

4. Describe in detail Nitrogen cycle in ecosystem. 10

Or

Write notes on :

- (a) Soil conservation
- (b) Grassland ecosystem.

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