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**W—85—2018**

**FACULTY OF SCIENCE**

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

**OCTOBER/NOVEMBER, 2018**

**(CBCS/CGPA)**

**BOTANY**

**Paper IX**

**(Ecology and Environmental Biology)**

**(MCQ & Theory)**

**(Friday, 19-10-2018)**

**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 answers with suitable diagrams.**

**MCQ**

**1. Multiple Choice Questions :**

**(i) The term ecology was coined by :**

**(a) Strasburger**

**(b) Hanstein**

**(c) H. Reiter**

**(d) Odum**

**(ii) The lowest layer of atmosphere is :**

**(a) Exosphere**

**(b) Thermosphere**

**(c) Troposphere**

**(d) Mesosphere**

**(iii) The viviparous mode of seed germination is found in :**

**(a) Halophytes**

**(b) Hydrophytes**

**(c) Xerophytes**

**(d) None of these**

**P.T.O.**

- (iv) Casuarina and Ziziphus are :
- (a) Non-succulent xerophytes (b) Ephemerals  
(c) Succulent xerophytes (d) None of these
- (v) The numerical strength of a species in relation to definite unit area is called :
- (a) Frequency (b) Density  
(c) Abundance (d) Dominance
- (vi) Plants and animals together forms ..... community.
- (a) Climatic (b) Inorganic  
(c) Abiotic (d) Biotic
- (vii) The pyramid of numbers is ..... in pond ecosystem.
- (a) Horizontal (b) Diagonal  
(c) Inverted (d) Upright
- (viii) Sulphur dioxide and nitrogen oxide gases in atmosphere cause :
- (a) Global warming (b) Acid rain  
(c) Greenhouse effect (d) None of these
- (ix) Soil erosion can be prevented by :
- (a) Over-grazing (b) Removal of vegetation  
(c) Deforestation (d) Afforestation
- (x) To prevent cutting of trees 'Chipko movement' commenced in ..... District.
- (a) Almora (b) Tehri-Garhwal  
(c) Nainital (d) Haldwani

### Theory

2. Describe in detail various components of soil.

*Or*

Write notes on :

- (a) Temperature as climatic factor
- (b) Nerium leaf.

3. What are hydrophytes ? Describe morphological and anatomical adaptations in hydrophytes.

*Or*

Write notes on :

- (a) Abiotic component of Ecosystem
- (b) Food Web.

4. Describe nitrogen cycle in detail.

*Or*

Write notes on :

- (a) Deforestation
- (b) Pond Ecosystem.