

**SIXTH SEMESTER B.Sc. DEGREE EXAMINATION, MARCH/APRIL 2016**

(UG—CCSS)

Core Course—Botany

BO 6B 08—ENVIRONMENTAL SCIENCE, **PHYTOGEOGRAPHY AND EVOLUTION**

(2012 Admission onwards)

Time : Three Hours

Maximum : 30 Weightage

**I. Answer all questions :**

Choose the correct answer :

1 Green plants are :

- (a) Primary producers. (b) Secondary producers.  
(c) Consumers. (d) Decomposers.

2 Which type of plants are tolerant of high salt in their environment ?

- (a) Halophytes. (b) Xerophytes.  
(c) **Hydrophytes.** (d) Mesophytes.

3 The theory of evolution by natural selection was proposed by :

- (a) Lamarck. (b) Charles Darwin.  
(c) de Vries. (d) Gregor Mendel.

4 The organization involved in the conservation **biodiversity** is :

- (a) ICBN. (b) KSBD.  
(c) **IUCN.** (d) WWE.

Fill in the blanks :

5 The acronym **UNEP** stands for \_\_\_\_\_

6 Population ecology is also known as \_\_\_\_\_

7 succession occurs on a water body is known as \_\_\_\_\_

8 \_\_\_\_\_ is the climax community in all succession.

Answer in a single word

9 Name a **megadiversity** nation.

10 Name an ecological indicator.

11 Name any *one* sampling technique used in plant community studies.2 **Phytogeographical** zones is also known as :(12 x  $\frac{1}{4}$  = 3 weightage)**Turn over**

**II. Answer *all* questions - short answer :**

- 13 Differentiate between insitu and exsitu conservation.
- 14 Write a brief account on productivity of ecosystems.
- 15 Write a brief account on phytogeography and its significance.
- 16 Briefly explain exponential population growth.
- 17 Explain BOD.
- 18 Differentiate between commensalism and parasitism.
- 19 Explain mortality.
- 20 What is meant by biodiversity hotspots ?
- 21 Write a brief account on proteniods.

(9 x 1 = 9 weightage)

**III. Answer any *five* questions - short essay :**

- 22 Describe the patterns of plant distribution.
- 23 Describe the construction of phylogenetic trees based on biomolecules.
- 24 Differentiate between food chain and food web.
- 25 Explain global warming and green house effect.
- 26 Explain the evolution of prokaryotic and eukaryotic cells.
- 27 Differentiate between primary succession and secondary succession.
- 28 Describe the construction of phytophages.

(5 x 2 = 10 weightage)

**IV. Answer any *two* questions - essay :**

- 29 Explain the modern trends in evolutionary studies.
- 30 Define pollution, explain different types of pollution and its effects.
- 31 What is meant by biogeochemical cycle ? Describe the nitrogen cycle.

(2 x 4 = 8 weightage)