

2015

BOTANY

Paper : 104 (Old Course)

ECOLOGY, ENVIRONMENT & PHYTO-GEOGRAPHY

Full Marks : 80

Time : 3 hours

The figures in the margin indicates full marks for the questions

1. Answer the following MCQ: 1x9=9
- a. Individuals of plant species occurring in particular area constitutes
 - i. Fauna
 - ii. Flora
 - iii. Population
 - iv. Flora&Fauna
 - b. Mycorrhizae is an example of
 - i. Commensalism
 - ii. Ammensalism
 - iii. Parasitism
 - iv. Symbiosis
 - c. The entire series of communities of biotic succession from the pioneer to the climax community is called
 - i. Troph
 - ii. Sere

(1)

P.T.O.

- iii. Population
- iv. Biome
- d. The first National Park Established in India is
 - i. Kaziranga National Park
 - ii. Jim Corbett National Park
 - iii. Hazaribagh National Park
 - iv. Gir National Park
- e. Which of the following is example of in-situ conservation
 - i. Captive breeding
 - ii. Seed bank
 - iii. National Park
 - iv. Pollen Bank
- f. The permissible limit of day time noise pollution recommended by WHO is
 - i. 80Db
 - ii. 90dB
 - iii. 75Db
 - iv. 76dB
- g. Which pyramid is always straight
 - i. Pyramid of number
 - ii. Pyramid of Biomass
 - iii. Pyramid of Energy
 - iv. Pyramid of Biomass and Number
- h. Which of the following do not contribute to climate change
 - i. N_2O

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- ii. SF_6
- iii. O_3
- iv. HFCs
- i. Hardness of water is due to presence of
 - i. Calcium and Magnesium ions
 - ii. Strontium and Nitrate ions
 - iii. Sodium and Chloride ions
 - iv. Potassium and Nitrite ions

2. Write short notes: 2x6=12

- a. Niche
- b. Grazing Food chain
- c. Pyramid of numbers
- d. Commensalism
- e. Biological clock
- f. Importance of forest to human beings

3. Write explanatory notes: (Any four) 5x4=20

- i. Endemism
- ii. Plant Migration
- iii. R selected and k selected species
- iv. Hot Spots and megadiversity
- v. Germplasm and seed banks

4. Answer any three of the following: (Any three)

- 1) What is Bio-diversity? What are the different levels of biodiversity? Explain what are In-situ and Ex-situ conservations strategies of biodiversity.

2+3+4=9

(3)

P.T.O.

- 2) What are the different phytogeographical regions of India .Describe any two phytogeographical regions of India. 3+6=9
- 3) What is ecological succession? Describe the trends and basic type of succession. 3+6=9
- 4) What is land Pollution? What are the chief sources of land pollution? Write a brief note on pesticide and herbicide contamination. 2+3+4=9
8. Write explanatory notes: (Any three) 4x3=12
- i. Fundamental and realized niche.
 - ii. Continental Drift hypothesis
 - iii. Population growth curves
 - iv. Green house gases and its effect.