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H-7242

M.Sc. (Semester-IV) Examination, July 2022

ENVIRONMENTAL SCIENCE

(Biodiversity and Its Conservation)

Time Allowed : Three Hours

Maximum Marks : 70

Minimum Passing Marks : 28

Note : Question paper is divided into four sections. Attempt questions of all the sections as per direction. Distribution of marks is given in each section.

Section - A

(Objective Type Questions)

Note : Attempt **any ten** questions. Each question carry **1** mark. [10x1=10]

1. (i) ___ levels of planning are used for the Biogeographical classification in India.

(ii) When the last individual in a particular species dies, it is known as _____.

(a) Speciation

(b) Extinction

(c) Phylogenetic diversity

(d) Adaptation

(iii) Which of these is a suitable example of ex-situ conservation ?

(a) National Park

(b) Wildlife Sanctuary

(c) Sacred Groves

(d) Seed Bank

(iv) All are in-situ conservation efforts except :

(a) National park

(b) Sanctuaries

(c) Zoo

(d) Biosphere reserves

(v) Biodiversity :

(a) Increases towards the equator

(b) Decreases towards the equator

(c) Remains same throughtout the planet

(d) Has no effect on change in latitude

(vi) Endemic species are :

(a) Rare species

(b) Species localized in a specific region

(c) Cosmopolitan in distribution

(d) Critically endangered species

(vii) Which one of the following is not observed in Biodiversity hotspots ?

(a) Species richness

(b) Endemism

(c) Accelerated species loss

(d) Lesser inter-specific competition

(viii) Which of the following exhibits unidirectional flow in an Ecosystem ?

(a) Biomass

(b) Energy

(c) Water

(d) Light

(ix) Main objective of Social forestry is to :

(a) Increase soil fertility of forests

(b) Beautify the forest areas

(c) Maintain ecological balance

(d) Increase the supply of fuel wood

(x) What are the products of Ecosystem processes named :

(a) Ecological services

(b) Ecological succession

(c) Ecological issues

(d) Ecological cycle

(xi) Which species provide highest medicine :

(a) Animal

(b) Plants

(c) Viruses

(d) Fungi

(xii) _____ is the basic unit of classification and a Taxonomic rank :

(a) Species

(b) Genus

(c) Class

(d) Order

Section - B

(Very Short Answer Type Questions)

3. Attempt **any five** questions. Each question carries **02** marks. (25-30 words) [5x2=10]

(i) Where is the headquarter of IUCN ?

(ii) What is Deforestation ?

(iii) What is the meaning of Arboreta ?

(iv) What are tropical mangrove forests ?

(v) What is ecological Diversity ?

(vi) What is biota in Ecosystem ?

(vii) What is Gene pool ?

Section - C

(Short Answer Type Questions)

4. Attempt **any five** questions. Each question carries **04** marks. (250 words) [4×5=20]

(i) Explain what is Red data book ?

(ii) Write a note on Forest management.

(iii) Explain ecological value of Forests.

(iv) Explain what are the mega diversity zones ?

(v) Explain what are the Biodiversity management approaches ?

(vi) What are the 5 main threats to Biodiversity ?

(vii) Explain what is sustainable exploitation of Biodiversity.

Section - D

(Essay Type Questions)

4. Attempt **any three** questions. Each question carries **10** marks. [3×10=30]

(i) Write a detail note on Biodiversity trends and threats to Biodiversity.

(ii) Write a note on classification and distribution of Forests in detail.

(iii) Write a note on recent strategies of Biodiversity conservation in detail.

(iv) Explain Biogeographical assessment of diversity in detail.

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