Total Pages : 8

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M.Sc. (Semester-II) Examination, 2022

BOTANY

(Systematics, Evolution and Environmental Science)

Time Allowed : Three Hours

Maximum Marks : 70

Minimum Passing Marks : 25

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

SECTION-A

(Objective Type Questions)

Note : Answer **any ten** questions. Each question carries **1** mark. [1x10=10]

1. (i) Phytogeography deals with --------- of plants.

(ii) In the light of modern evidences, the original theory of Darwin is now known as ----------.

(iii) Natural selection is a ------- process.

(iv) -------- introduce the system for naming all the organism known as binomial nomenclature.

(v) When you are eating an apple, you are a --------.

(vi) There would be no life in the ocean without organisms called ------ and -------.

(vii) Experimental evidences for molecular evolution of life was provided by ----------.

(viii) Indian sub-continent is also known as :

(a) East Asia

(b) South Asia

(c) North Asia

(d) West Asia

(ix) Which of the following is an example of Anthropogenic biome ?

(a) Freshwater biome

(b) Grasslands

(c) Rainforests

(d) Croplands

(x) Exotic species are :

(a) Often endangered

(b) Usually increase biodiversity

(c) Often enhance the habitate for native species

(d) Usually reduce biodiversity

(xi) What was the theory put forward by Lamarck ?

(a) Transformism

(b) Evolution

(c) Creationism

(d) All of these

(xii) Which of the following would cause microevolution ?

(a) Mutation

(b) Inbreeding

(c) Founder's effect

(d) All of these

SECTION-B

(Very Short Answer Type Questions)

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

2. (i) Define Binomial Nomenclature.

(ii) Distinguish between Cytotaxonomy and Chemotaxonomy.

(iii) Give an outline of classification of flowering plants.

(iv) Write objectives of Ecology.

(v) Define Co-evolution.

(vi) Write notes on future of planet Earth.

(vii) Differentiate between food web and food chain.

SECTION-C

(Short Answer Type Questions)

Note: Attempt **any five** questions. Each question carries **04** marks. (Word limit : 250 words) [4x5=20]

3. (i) What are the major ecosystems in India ?

(ii) Write notes on New Systematics.

(iii) Write notes on Species and Speciation.

(iv) What do environmental laws regulate ?

(v) Describe components of aquatic ecosystem.

(vi) Write notes on Productivity.

(vii) Describe Trophic levels in Ecosystem.

SECTION-D

(Essay Type Questions)

Note: Attempt **any three** questions. Each question carries **10** marks. (Word limit : 500 words) [3x10=30]

4. (i) Write effect of environmental changes on Human health.

(ii) What is Green-energy ? Describe resources and management of Green-energy.

(iii) Write applications of RS technology in environmental studies.

(iv) Write notes on Environmental Laws.

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