P-51

Roll No. ....

MBOT-606

Biostatistics and Ecology

M.Sc. Botany (MSCBOT)

4th Semester Examination, 2023 (June)

Time : 2 Hours]   **[Max. Marks : 35**

Note : This paper is of Thirty Five (35) marks divided into two (02) Sections A and B. Attempt the questions contained in these sections according to the detailed instructions given therein. Candidates should limit their answer to the questions on the given answer sheet. No additional (B) answer sheet will be issued.

SECTION–A
(Long Answer Type Questions)

Note : Section 'A' contains Five (05) long answer type questions of Nine and Half (9½) marks each. Learners are required to answer any Two (02) questions only.

$(2×9½=19)$

1. Define climate change. What are the causes and consequences of climate change?

2. What are biogeochemical cycles? Discuss the Nitrogen cycle in detail.

3. What is an ecosystem? Describe the components of ecosystem in detail.

4. What do you mean by environmental pollution? Give a brief account of air and soil pollution.

5. What is bioinformatics? Describe its main components and applications.

SECTION–B

(Short Answer Type Questions)

Note : Section 'B' contains Eight (08) short answer type questions of Four (04) marks each. Learners are required to answer any Four (04) questions only. (4×4=16)

1. Select two questions from the following to give answers in brief :

(a) Greenhouse gases and their sources.

(b) Conservation of biodiversity.

(c) Abiotic components of the ecosystem.

(d) Arithmetic Mean.

2. Write an explanatory note on the soil profile.

3. Describe the ecological pyramids in brief with the help of suitable diagrams.

4. Write short notes on any *two* of the following :

(a) Threatened species

(b) Food chain and food web

(c) Pyramid of biomass

(d) F test

5. Describe Alpine vegetation in brief with particular reference to India.

6. What is energy? Describe the flow of energy in an ecosystem.

7. What is ecology? Define different fields of ecology.

8. How will you compare the mean of more than two samples? What is name of this test and how it is performed?

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