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Total Pages : 3

Roll No.

MSCBOT-602

Plant Ecology

M.Sc. Botany (MSCBOT)

3rd Semester Examination, 2023 (June)

Time : 2 Hours]

Max. Marks : 70

Note : This paper is of Seventy (70) 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 Nineteen (19) marks each. Learners are required to answer any Two (02) questions only.

(2×19=38)

- 1.** Define 'Pollution' and 'Pollutants'. Write an essay on the problem of ecological pollution and its control methods.

2. Describe characteristics of community.
3. Define ecosystem. Write detailed account on structure and rate function of an ecosystem.
4. What is ecosystem energetics? Describe Y-shaped energy flow model in an ecosystem.
5. Explain any *two* of the following in detail :
 - (a) Food chain and food web.
 - (b) Primary productivity and secondary productivity.
 - (c) Trophic niche and hyper volume niche.
 - (d) Ecads and Ecotypes.

SECTION-B

(Short Answer Type Questions)

Note : Section 'B' contains Eight (08) short answer type questions of Eight (08) marks each. Learners are required to answer any Four (04) questions only. (4×8=32)

1. Differentiate primary and secondary succession.
2. Define net primary productivity. What are the factors that affect net primary productivity in plants?

3. Explain the following :
 - (ai) Ecological Pyramids.
 - (b) Biochemical oxygen demand (BOD).
 4. Discuss the various factors that regulate population growth.
 5. What is water pollution? Describe different kinds of water pollutants and their ecological effects.
 6. Discuss the various theories of climax concept in succession.
 7. Write detailed note on J-shaped and S-shaped population growth curves.
 8. Write short notes on any *two* :
 - (a) Keystone species.
 - (b) Chlorofluorocarbons (CFCs)
 - (c) Biosphere.
 - (d) Hydrosere.
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