Total Pages : 3

Roll No.

EVS-506

Environmental Physics and Chemistry

M.Sc. Environmental Science (MSCES)-21

2nd Semester Examination, 2022 (Dec.)

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.

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.

 $(2 \times 19 = 38)$

 What is eco-toxicity? Elaborate the effect of eco-toxicants on human health and also discuss the mitigation approaches of eco-toxicants.

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[P.T.O.

- (a) What are different types of land forms present on earth? Discuss the effect of land forms on temperature, precipitation and solar radiation.
 - (b) What is soil water? Explain different forms of water available in the soil. 9
- **3.** (a) Differentiate between fog and smog. How precipitation affect visibility and transparency of a place ? 10
 - (b) How soil water affects plant growth ? 9
- (a) What is primary and secondary air borne contaminants? Discuss the adverse impact of air pollutants on human beings and plants.
 - (b) What is acid rain? Explain the process of formation of acid rain. 9
- 5. (a) What is temperature? How quality, intensity and duration of light affect animal and plant growth? 10
 - (a) Discuss various water purification techniques in detail. 9

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. What is fire? Elaborate different types of fires and their effect on plant and soil biota.

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- **2.** Differentiate between :
 - (a) Precipitation and humidity.
 - (b) Dry deposition and wet deposition.
- 3. What are antioxidants? How these affect human health ?
- 4. What is photoperiodism? Explain mechanism of photoperiodism in detail.
- **5.** Explain with giving suitable examples the process of biomagnification.
- **6.** How various physical factors affect functioning of ecosystems?
- 7. What are different chemicals used in food industry? How these exerts adverse impact on environment?
- **8.** What is mitigation? What are the mitigation strategies you will adopt for the removal of chemical from drugs and sweeteners?