December 2023 NIT Kurukshetra ENVIRONMENTAL SCIENCE (CHIC-101)

Duration: 3 Hours Max. Marks: 50

Instructions

- The candidates, before starting to write the solutions, should check the Question Paper for any discrepancy and ensure that they have been delivered the Question Paper of right Course No. and correct Subject Title.
- Attempt Five questions in all. All questions carry equal Marks.
- **Q1** (a) Why is Biodiversity important? Write various levels of biodiversity. (5)
 - (b) Can we rely exclusively on nuclear energy for driving energy for all applications? Support your answer with proper justification. (5)

or

What is nuclear energy? Write advantages and disadvantages of nuclear energy.

Q2 (a) Explain photovoltaic solar cells and comment on its advantages & disadvantages (5)

or

- Write a note on mineral resources. Also explain environmental issues associated with extracting and using mineral resources.
- (b) Explain the importance of Forests (any five) and effects of Timber extraction (any five). (5)
- **Q3** (a) Write a note on: Green-house effect. (5)
 - (b) What is acid rain? Explain its impacts on human communities and agriculture. (5)
- **Q4** (a) Write short notes on: (a) Particulate matter (b) Methyl Isocyanate (c) Bad ozone (d) Point source pollution (e) Reverse osmosis (5)

- Write a brief note on causes, effects and control measures of solid waste management.
- (b) Explain the importance of water conservation and describe rain water harvesting. (5)
- **Q5** (a) Match most appropriate radioisotope(s) uses in pathological diagnosis for thyroid, lungs, liver, intestinal scanning and cancer treatment. (Isotopes selection list: Xe-133, Au-198, Tc-99, I-131, Y-90) (5)

or

- Explain the objectives and importance of Air (Prevention and Control of Pollution) Act. What can an individual do to support the Act?
- (b) Write a case study on watershed management from any one of the following: (i) Pani Panchayat Pune, Maharashtra (ii) Mewar, Rajasthan (5)



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