2020

ENVIRONMENTAL SCIENCE
[HONOURS]
Paper : IV
[SUPPLEMENTARY]

Full Marks : 75   Time : 4 Hours

The figures in the right-hand margin indicate marks.
Candidates are required to give their answers in
their own words as far as practicable.

1. Answer any **five** of the following: $1 \times 5 = 5$

    a) Cite two examples of vector borne diseases.

    b) State the pH range of acid rain.

    c) What is the full form of UNFCCC?

    d) Mention the bioindicator of SO_2 pollution.

    e) Cite an example of synergistic interaction between two toxicants.

    f) Mention two substitutes of CFC.

    g) Define eutrophication.

2. Answer any **six** of the following: $2 \times 6 = 12$

    a) Mention two effects of human exposure to UV radiation.

    b) Mention the symptoms of fluorosis.

    c) Define 'silence zone' with specified sound limit.

    d) How does PM_{10} differs from $PM_{2.5}$.

    e) Explain biomagnification with an example.

    f) Distinguish between LC_{50} and LD_{50}.

    g) State the significance of altruism.

    h) What is meant by ENSO?

    i) Explain 'soil quality'.

3. Write short notes on any **three** of the following:
                                        $6 \times 3 = 18$

    a) Soil pollution monitoring and control strategies

    b) El Nino effects

    c) Environmental risk evaluation and management

    d) Biological clock

    e) Toxicity bioassays

4. Answer any **four** of the following: 10×4=40

a) Define epidemiology. Give an outline of epidemiological techniques applied in case of fluorosis. 2+8=10

b) What is environmental risk? Give an overview on environmental risk evaluation and management. 2+8=10

c) Discuss the primary and secondary treatment processes in an effluent treatment plant with schematic diagram. 5+5=10

d) Write an essay on major occupational health diseases in cement industries. 10

e) Write down the source, chemical nature, transport and fate of lead and mercury in the environment. 5+5=10

f) Describe salinity stress on plant growth, reproduction and adaptation. 3+3+4=10

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