

2014

M.Sc. Part-I Examination

ENVIRONMENTAL SCIENCE

PAPER—III

Full Marks : 100

Time : 4 Hours

The figures in the right-hand margin indicate full marks.

Candidates are required to give that answers in their own words as far as practicable.

Illustrate the answers wherever necessary.

Answer Q. No. 1 and any five questions from the rest.

1. Answer any ten of the following : 10×2

- (i) Differentiate pollution from ecodegradation.
- (ii) What is ecorestoration ?
- (iii) Mention different types of bioindicator species.
- (iv) Differentiate primary pollutants from secondary ones.
- (v) What is 'Blue-Baby Syndrome' ?
- (vi) Mention the physical characteristics of troposphere.

- (vii) Enlist the sources of sound pollution ?
- (viii) Write the composition of biomedical wastes.
- (ix) Write the full form of UNEP.
- (x) Name two water borne disease of human.
- (xi) Mention the difference between contaminants and pollutants.
- (xii) Explain the causes of 'Arsenic Pollution'.
- (xiii) What are the controlling strategies for oil pollution ?
- (xiv) Name the metals causing Itai Itai and Minamata diseases.
- (xv) Write the full form of EIA.
- (xvi) What is biopesticide ?
2. Mention different sources of air-pollution. Discuss the made of removal of air pollutants. Name different instruments and strategies used for controlling air pollution in the industry.
4+6+6
3. What are particulate matters? Discuss on different particulate air pollutants mentioning their sources. Add a note on the effects of air pollutants on human health.
2+7+7

4. What are 'Oxygen-Demanding Wastes'? Explain the environmental consequences in aquatic systems of these wastes. Highlight the relationship between D.O. and B.O.D.
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5. What is thermal pollution? Schematically explain the principles of Thermal Power Plants functioning. Discuss on its environmental impacts.
2+6+8
6. Define 'Acid Rain'. Elaborate the roles of meteorological parameters on the formation of acid rain. Briefly discuss the chemical pathways of acid rain formation. Add a note on the impact of acid rain on agriculture and aquaculture.
2+4+6
7. Write down the role of soil microbes on degradation of soil pollutants. How heavy metals causes soil pollution? How microbes increases nitrogen level of soil.
5+5+6
8. Why pollution by chemical fertilisers is considered as both non-point and point pollution? Discuss the environmental consequences of pollution by chemical fertilisers. Mention the advantages of using biofertilisers from ecological stand point.
4+8+4

9. Write short notes on (any two) : 8+8

- (a) Biomagnification ;
 - (b) Solid Waste disposal ;
 - (c) Radio active wastes ;
 - (d) Significance of CRZ in abating marine pollution.
 - (e) Relationship between Green-House-Effect and Global Warming.
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