

2015

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) What are Oxygen demanding wastes ?
- (ii) What is 'Kyoto Protocol' ?
- (iii) Mention different divisions of CRZ.
- (iv) Highlight the relationship between D.O. and B.O.D.
- (v) What is meant by 'Source and Sink' of air pollution ?
- (vi) What are the factors leading to cause turbidity in fresh water ecosystem ?

(Turn Over)

- (vii) What is MIC ?
- (viii) Differentiate SPM from RSPM.
- (ix) Differentiate Ecorestoration from Ecorehabilitation.
- (x) What is PAN ?
- (xi) Mention two major sources of soil pollution.
- (xii) What is mixing height ?
- (xiii) What is Water Quality standard ?
- (xiv) Mention two preventive measures against noise pollution.
- (xv) What is 'Bio-Indicator' species ?
2. Briefly discuss the physical properties of different layers in the atmosphere from the perspective of air pollution. What is thermal inversion. Mention its significance. Elaborate the criteria for developing green belt around an industry ?
6+2+2+6
3. What is Ozone-Hole ? Mention sources and properties of Ozone eating pollutants. Discuss on the normal Ozone forming process in the stratosphere. Explain the mode for action of Ozone eating pollutants. Enlist different environmental consequences of 'Ozone-Hole' formation.
2+2+4+4+4

4. Define eutrophication. What are the differences between natural and cultural eutrophication. Mention the sources and properties of substances causing eutrophication. Elaborate schematically different environmental consequences of eutrophication.
2+3+3+8
5. Draw the relationship between green-house effect, global warming and climate change. Explain different environmental consequences of global warming. Write two mitigation measures against this problem.
5+8+3
6. Highlight the differences between Bioaccumulation, Biotransformation and Biomagnification. Briefly discuss on the ecological impacts of the usage of persistent pesticides. Highlight remedial measures to overcome the problem.
5+6+5
7. Define noise. Write four major sources for noise pollution. What is noise induced hearing loss ? Mention its different types. Highlight different measures to be adopted to overcome noise pollution.
2+4+3+4+3

8. Explain different pollutants and their pathways of entry of marine environment. What are impacts of oil pollution in marine environment. Mention some preventive measures against this problem.

5+7+4

9. Write short notes on (any four) : 4×4

- (a) Difference between Point and Non-Point Pollution with example ;
 - (b) Impacts of plastics on marine fauna ;
 - (c) Briefly explain role of particulate pollutants on cardiovascular system of human being ;
 - (d) Differences between London-type of smog and Loss-Angelles type of smog.
 - (e) Differences between wet removal and Dry deposition of air pollutants.
 - (f) Explain the role of meteorological parameters on developing 'Acid-Rain'.
 - (g) Ground Water Pollution.
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