

22511

23242

3 Hours / 70 Marks

Seat No.

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- Instructions* –
- (1) All Questions are *Compulsory*.
 - (2) Answer each next main Question on a new page.
 - (3) Illustrate your answers with neat sketches wherever necessary.
 - (4) Figures to the right indicate full marks.
 - (5) Assume suitable data, if necessary.
 - (6) Use of Non-programmable Electronic Pocket Calculator is permissible.
 - (7) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.

Marks

- 1. Attempt any FIVE of the following: **10****
- a) List any four sources of water pollution.
 - b) Define COD and BOD.
 - c) State role of state pollution control board.
 - d) List four equipments to remove particulate matter.
 - e) Give any four characteristics of water pollutants.
 - f) Define ecosystem. Name any two Biotic components.
 - g) Name any two pollutants which causes ozone depletion.

P.T.O.

- 2. Attempt any THREE of the following: 12**
- a) Explain green house effect with their effects on ecosystem.
 - b) Describe effects of air pollution on human health and plants.
 - c) Explain types of municipal solid waste in details.
 - d) Explain the process of ISO 14000 certification.
- 3. Attempt any THREE of the following: 12**
- a) Describe air pollution and control in sulphuric acid plant.
 - b) Explain wet scrubber with a neat sketch to control particulate pollution.
 - c) Explain importance of recycle of solid waste and relate it with 3R principle.
 - d) Explain types of water pollutants in details.
- 4. Attempt any THREE of the following: 12**
- a) Describe environmental management in industry.
 - b) Explain carbon cycle with a neat sketch.
 - c) Explain sanitary landfill method.
 - d) Explain activated slugged treatment for waste water.
 - e) Explain collection and disposal method of Biomedical waste.
- 5. Attempt any TWO of the following: 12**
- a) Give the application of RO and membrane separation technology in waste water treatment.
 - b) Explain sources of solid waste and biomedical waste.
 - c) Explain catalytic converter with a neat sketch to control gaseous pollution.
- 6. Attempt any TWO of the following: 12**
- a) Explain the working of cyclone separator with a neat sketch.
 - b) Trickling filter with a neat sketch.
 - c) Explain aquatic and terrestrial ecosystem with a suitable examples.
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