## 22511

## 12425 03 Hours / 70 Marks Seat No.

- 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 <u>FIVE</u> of the following:

**10** 

- a) Define Ecology.
- b) List four Air Pollutants.
- c) List any four equipment used for control of gaseous pollutants.
- d) Define C. O. D.
- e) State the physical characteristics of waste water.
- f) Give any four benefit of ISO 14000.
- g) What is meaning of 3R.

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225		[ 2 ]	Marks
2.		Attempt any THREE of the following:	12
	a)	Explain Terrestrial Ecosystem.	
	b)	State effects of Air pollution on Human Health.	
	c)	State Role of state pollution control board.	
	d)	Explain 3R Principle in solid waste management.	
3.		Attempt any THREE of the following:	12
	a)	Explain structure of Eco-system with neat sketch.	
	b)	Draw labelled sketch of Cyclone Separator.	
	c)	Explain sources of Water Pollution.	
	d)	Explain disposal method of Hazardus waste.	
4.		Attempt any THREE of the following:	12
	a)	Explain Carbon Cycle with neat sketch.	
	b)	Write any four feature of Air Pollution Control Act 1981.	
	c)	Explain use of membrane technology for treatment of waste water.	
	d)	Explain term	
		i) Dissolved solids	
		ii) Total solids	
	e)	Explain food chain and food web.	
5.		Attempt any <b>TWO</b> of the following:	12
	a)	Describe Air Pollution controlling method by using wet scrubber.	
	b)	Draw diagram of trickling filter and list any four advantages	<b>.</b>
	c)	Explain the environmental management in chemical industry.	

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		Marks
6.	Attempt any TWO of the following:	12

- a) Write working of catalytic convertor with neat diagram.
- b) Explain Activated Sludge treatment with diagram.
- c) Explain energy recovery method from solid waste.