Total number of printed pages-2

53 (ES 101) ESEN

AVAN

## ENVIRONMENTAL AND SAFETY ENGINEERING

Paper : ES 101

## Full Marks : 100

## Time : Three hours

## The figures in the margin indicate full marks for the questions.

Answer any five questions.

1.

(a) Explain the concept of ecological balance and its consequence of change.

- (b) What is radiation heat transfer?
  Describe the system of earth's energy balance.
  10
- 2. (a) Discuss the causes and effects of solid wastes from Urban and Industrial areas. Provide remedial measures to control pollution from such wastes.

10

Contd.

- (b) Write about any three types of criteria pollutants.
- (a) Write a note on global warming and suggest a few remedial measures at 10
  - (b) Discuss three different methods that are used in industries to control particulate pollutants. 10
- 4. Discuss the various processes of water treatment with layout of a water treatment plant. 20
- 5. Write short notes on :  $4 \times 5 = 20$ 
  - (a) Sound Pollution
  - (b) Acid Rain

3.

- (c) Ozone Layer
- (d) Population Growth.
- 6. (a) Write about Carbon and Nitrogen cycle.

2

(b) What are pesticides? Classify them. What are its effects on plants and animals? 10

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100