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Roll No. : .....

**320844(20)**

**B. E. (Eighth Semester) Examination, 2020**

APR-MAY

(New Scheme)

(Civil Engg. Branch)

**AIR POLLUTION and CONTROL MEASURES**

*Time Allowed : Three hours*

*Maximum Marks : 80*

*Minimum Pass Marks : 28*

*Note : Attempt all questions. Part (a) is compulsory in each question. Attempt any two parts from (b), (c) and (d) part of each question.*

**Unit-I**

1. (a) Define Air Pollution. 2
- (b) Briefly explain the classification of pollutants, also write about their characteristics and sources. 7

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- (c) Describe stack sampling techniques and also describe the selection of sampling location. 7
- (d) Write short notes on : 7
- (i) Photochemical smog
  - (ii) Stack gases
  - (iii) Aerosols.

### Unit-II

2. (a) Explain Meteorology. 2
- (b) Describe the classification of plume behaviours with well labelled diagram. 7
- (c) Explain in brief Gaussian plume model with assumptions and limitations. 7
- (d) Write short notes on : 7
- (i) Wind Rose
  - (ii) Wind profile

### Unit-III

3. (a) What is particulate matters. 2

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- (b) Describe the removal techniques adopted for particulate matter. 7
- (c) Explain in brief effect of Sox on plant, animal, human and material. 7
- (d) Write short notes on : 7
- (i) Control and prevention of sox
  - (ii) Nox sources
  - (iii) Effect of Nox on plant

#### Unit-IV

4. (a) Write the any five name of special diseases caused by air pollution. 2
- (b) Describe the effects of photochemical smog on plants. 7
- (c) Describe the mechanism of deterioration in polluted atmosphere. 7
- (d) Explain the various kind of injury to plant due to air pollutants. 7

#### Unit-V

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5. (a) Write the full form of PAN? 2
- (b) Describe the principle and construction of fabric filters with well labelled diagram. What are the factor affecting the efficiency of fabric filters? 7
- (c) Write short notes on : 7
- (i) Acid Rain
- (ii) Ozone Layer depletion
- (d) Write a short note on Air pollution control act. 7