Roll No. | | | | | | | | | | |

B.E / B.Tech (FT [redacted]) END SEMESTER EXAMINATIONS – APRIL / MAY 2019

CIVIL ENGINEERING

CE8017 & Air Pollution and Control Engineering

(Regulation 2013)

Time: 3 Hours | Answer ALL Questions | Max. Marks 100

PART-A (10 x 2 = 20 Marks)

CONTROLLER OF EXAMINATIONS ADDITIONAL AU CHENNAI 600 025

1. Define air pollution and briefly explain its importance of study?
2. Write a short note on effects of air pollution on human health.
3. What is Dispersion of contaminants in air Pollution?
4. What are the principles on which the Gaussian model is based?
5. What are the major sources of dust generation in cement industries?
6. What are the different types of methods of controlling emission at the source?
7. Discuss on general methods of control of NOX and SOx emissions
8. Explain the term "Inversions" and its importance with examples
9. What is PM10? Why it is given name PM10 discuss?
10. What is Environmental policy? How far it is implementing in India

Part – B (5 x 16 = 80 marks)

(Question No.11 is Compulsory)

11. List out the sources of Natural Sources Vs Manmade sources of Air Pollution. Classify the sources of Air Pollution?

12. a) Explain with a neat sketches, how plume behave in different atmospheric stability condition.

(OR)

b) Define Wind rose. Explain the importance of wind rose in air pollution studies.

13. a) Explain air pollution control equipment-Electrostatic precipitator with sketch.

(OR)

b) Give brief description on function of Cyclone Separators (Reverse flow Cyclone).

14. a) Differentiate between physical and chemical adsorption. And its impact on environment

(OR)

b) Discuss the following cases of air pollution episodes : Bhopal Gas Tragedy

15. a) Explain the procedure for the collection of suspended particulates by high volume sampler.

(OR)

b) Is dilution a solution to pollution? Is indoor pollution better or worse than outdoor?