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Total No. of Pages : 02

Total No. of Questions : 18

**B.Tech. (CE) (2012 to 2017) (Sem.-7)**  
**ADVANCED ENVIRONMENT ENGINEERING**  
Subject Code : BTCE-815  
M.Code : 71874

Time : 3 Hrs.

Max. Marks : 60

**INSTRUCTIONS TO CANDIDATES :**

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt any FOUR questions.
3. SECTION-C contains THREE questions carrying TEN marks each and students have to attempt any TWO questions.

**SECTION-A**

Answer briefly :

- 1) List the different interrelated spheres of Earth's Environment.
- 2) Give any two examples of interaction between biosphere and atmosphere.
- 3) What are primary air pollutants? How are they different from secondary air pollutants?
- 4) Define and contrast the different types of atmospheric inversions.
- 5) Define lapse rate.
- 6) Express 4% of CO at 1 atm and 25 degree centigrade in micro gram/cu, m, Given C-12 and O-16.
- 7) List any Four effects of noise pollution.
- 8) Define and contrast between EIA and LCA.
- 9) List any four waste-energy technologies for solid waste management.
- 10) Define and contrast between risk and hazard.

### SECTION-B

- 11) *“In nature material movement observes the basic laws of conservation of energy and matter”*. Elucidate and deduce the concept of ‘zero waste’ systems.
- 12) Explain the phenomenon of global warming due to air pollution.
- 13) Explain the classification of hazardous waste.
- 14) Explain any two noise control strategies adopted in industrial environment.
- 15) Describe any two air pollution control systems used in automobiles.

### SECTION-C

- 16) What is meant by stability of the atmosphere? Using a diagrammatic presentation explain the different stability conditions of the atmosphere.
- 17) Explain the dose–response methodology in risk assessment.
- 18) Describe different technologies for disposal of hazardous wastes. Discuss the environmental issues associated with land disposal of hazardous wastes.

**NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.**