

**B.TECH. CIVIL ENGINEERING
(BTCLEVI)**

Term-End Examination

December, 2013

**BICEE-012 : AIR QUALITY MONITORING AND
CONTROL**

Time : 3 hours

Maximum Marks : 70

Note : Attempt any five questions.

All questions carry equal marks.

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| 1. | (a) | What is air pollution ? Explain the causes of air pollution in detail. | 7 |
| | (b) | Discuss the characteristics of air pollutants in brief. | 7 |
| 2. | (a) | Write the effects of air pollutants on physical features of the atmosphere. | 7 |
| | (b) | Explain in brief, the meteorological parameters that influence air pollution. | 7 |
| 3. | | Explain with the help of diagrams, various types of plume behavior. | 14 |
| 4. | | Explain in detail, the reduction of airpollution by changing raw materials and process of production. | 14 |
| 5. | (a) | What are the objectives of stack ? What are the data required for designing a stack ? | 7 |
| | (b) | Explain the operational principles of electrostatic precipitators. | 7 |

6. (a) Write the main objectives of the sampling at source. How the location is decided for collection of samples of polluted air ? 7
- (b) Explain the procedure for particulate matter sampling. 7
7. Write short note on **any four** of the following :
- (a) Catalytic convertor 4x3½=14
- (b) Primary Air Pollutants
- (c) Zoning Practices in India
- (d) Sampling study planning
- (e) Gaseous Pollutants and their sources
- (f) Industrial Ventilation Systems
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