

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

Term-End Examination

June, 2013

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

Time : 3 hours

Maximum Marks : 70

Note : Answer *any five* questions.

1. (a) Define the following : 8
(i) Aerosol (ii) Smoke
(iii) Fly ash and (iv) Smog
- (b) What is photo chemical smog ? Explain it's formation and effects. 6

2. (a) What are the natural air pollutants ? 7
Explain the properties of Nox, PAN and CO.
- (b) Explain the effects of air pollution on human being. 7

3. (a) Explain the economic and social aspects of air pollution. 7
- (b) What do you understand by sources and sinks of air pollution ? Explain with an example. 7

4. (a) Write a note on the following : $2 \times 3.5 = 7$
- (i) Urban Heat Island
 - (ii) Acid rain
- (b) What is wind rose ? How is it made ? 7
What are its uses ?
5. (a) With neat sketches explain the behaviour 7
of a plume for various environmental
conditions.
- (b) What are the various techniques of control 7
of gaseous air pollutants in an Industry ?
Explain **any one** in detail.
6. (a) What are the major air pollutants present 8
in urban ambient air ? Explain in detail
the procedure of sampling and analysing
of SO_x.
- (b) Explain the legal provisions for air 6
pollution control.
7. Write short notes on *any two* of the following : $2 \times 7 = 14$
- (a) Occupational diseases
 - (b) Industrial Ventilation
 - (c) Primary and Secondary Pollutants
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