



COLLEGE OF ENGINEERING, PUNE

(An Autonomous Institute of Government of Maharashtra.)
SHIVAJI NAGAR, PUNE - 411 005

END Semester Examination

(CE-ILE-14005) Environmental Pollution (ILE)

Course: B Tech

Branch: Civil Engineering

Semester: Sem VII

Year: 2014-2015

Max.Marks:60

Duration: 3 Hours Time:- 2-5PM

Date: /11/2014

Instructions:

MIS No.

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20 NOV 2014

1. Figures to the right indicate the full marks.
2. Mobile phones and programmable calculators are strictly prohibited.
3. Writing anything on question paper is not allowed.
4. Exchange/Sharing of anything like stationery, calculator is not allowed.
5. Assume suitable data if necessary.
6. Write your MIS Number on Question Paper
- 7 Attempt any five questions in a sequence

Q. 1 A	Explain effects of following air pollutants on human health (Tabular form) 1) SPM 2) SO _x 3) NO _x 4) CO	04
B	Explain with examples economic losses due to air pollution	04
c	Write in one line Meaning of following terms 1) Bifacial Necrosis 2) Epinasty 3)Abscission 4)Chlorosis	04
Q. 2 A	Discuss following with respect to global warming 1)Mechanisms of global warming 2) Effects 3) Control measures	06
B	Write with examples air pollution control at source	06
Q. 3 A	Enlist and explain primary and secondary metrological parameters which affect dispersion of air pollutants	06
B	Draw suitable sketches and explain effects of water body, ridge & valleys, tall buildings on dispersion of air pollutants.	06
Q. 4A	Write the sources of odor. What are the effects of odor on human health? Suggest remedial measures for odor control in chemical industries.	12
Q 5 A	In a thermal power plant, a stack of height 100 mts. releases SO _x at a rate of 500 mg /sec with a velocity of 5 mt / sec. The internal diameter of stack is 1.5 mt. The temperature of atmospheric air and gas released are 25 °C and 300°C. Atmospheric pressure is 1000 milibars. Wind speed at top of the stack is 2 mt/sec. Find ground level concentration of SO _x at 5 km downwind assuming σ _y = 300 mt σ _z = 95 mt	12

Q. 6	A	What is Environmental Impact Assessment? Write objectives of EIA studies. Draw the flow diagram for preparation of EIA report	06
	B	Explain with example importance and methods of public involvement in preparation of EIA for a development project.	06
Q. 7	A	Enlist physical, chemical and biological characteristics of waste water. Draw a flow diagram of wastewater treatment plant.	06
	B	Write the purpose of following treatment units in a wastewater treatment plant 1) Screen chamber 2) Grit Chamber 3) Primary settling tank 4) Biological Reactor 5) Secondary sedimentation tank 6) Digester	06