## BIRLA INSTITUTE OF TECHNOLOGY, MESRA, RANCHI (END SEMESTER EXAMINATION)

CLASS: MCA/PRE-PHD SEMESTER: IV/NA BRANCH: MCA/CS SESSION: SP/19

SUBJECT: TES2011 INDUSTRIAL POLLUTION AND CONTROL

TIME: 3.00 HOURS FULL MARKS: 60

## **INSTRUCTIONS:**

- 1. The question paper contains 7 questions each of 12 marks and total 84 marks.
- 2. Candidates may attempt any 5 questions maximum of 60 marks.
- 3. The missing data, if any, may be assumed suitably.
- 4. Before attempting the question paper, be sure that you have got the correct question paper.
- 5. Tables/Data hand book/Graph paper etc. to be supplied to the candidates in the examination hall.

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Q.1(a) Q.1(b)	Identify the major areas to be focused for minimization of industrial pollution in India.  Outline the concept of Air Quality Index and its associated health impacts.	[6] [6]
Q.2(a) Q.2(b)	Recognize the major environmental pollution occurring in the cement manufacturing process. Summarize the different methods of gaseous pollutant control in industries.	[6] [6]
Q.3(a)	Discuss the different vertical zones of a lentic water system and correlate it with the thermal stratification.	[6]
Q.3(b)	Explain the coagulation-flocculation process of wastewater treatment.	[6]
Q.4(a) Q.4(b)	Enlist the factors affecting the distribution of contaminants in soil and the related risk of exposure. Enlist the diseases caused in human beings due to soil pollution from industries.	[6] [6]
Q.5(a) Q.5(b)	Review the different types of hazards in industries, which can cause severe health implications. Outline the process of hazard analysis in industries.	[6] [6]
Q.6(a) Q.6(b)	Discuss the effect of extraneous factors on industrial toxicity.  Describe the exposure, toxic effects and symptoms of Hg poisoning.	[6] [6]
Q.7(a) Q.7(b)	Define sustainable development and discuss the factors of sustainable development. Write about the wasteland reclamation process.	[6] [6]

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