

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

**CLASS: BARCH
BRANCH: ARCH**

**SEMESTER : III
SESSION : MO/2024**

SUBJECT: CE101 ENVIRONMENTAL SCIENCES

TIME: 3 Hours

FULL MARKS: 50

INSTRUCTIONS:

1. The question paper contains 5 questions each of 10 marks and total 50 marks.
 2. Attempt all questions.
 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)	Describe the energy flow in the aquatic ecosystem considering the losses at each level with values (in Kcal/m ² /year).	[5] 1	2
Q.1(b)	Explain the carbon cycle, considering the importance of CO ₂ concentration in the atmosphere in the global warming phenomenon.	[5] 1	2
Q.2(a)	Discuss the classification of air pollutants and cite examples for each type.	[5] 2	2
Q.2(b)	Discuss vehicular emissions and the control strategy adopted in emission control.	[5] 2	2
Q.3(a)	Discuss the different components of raw water treatment with a neat, labelled flow diagram.	[5] 3	2
Q.3(b)	Describe the activated sludge treatment process with a neat and labelled diagram.	[5] 3	2
Q.4(a)	Discuss the physical and chemical properties of municipal solid waste that are useful in a solid waste management plan.	[5] 4	2
Q.4(b)	Describe the process of composting. Discuss the key elements of composting.	[5] 4	2
Q.5(a)	Discuss the effects of noise and describe the preventive measures practised in the industries to control noise pollution.	[5] 5	2
Q.5(b)	Discuss the hazards associated with radioactive waste and describe the prevalent disposal methods for different categories of waste.	[5] 5	2

:25/11/2024:E