

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

**CLASS: MTECH/MSC
BRANCH: CSE/BT/PE/RS/ME/MGI/PHYSICS**

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

SUBJECT: CE576 ENVIRONMENTAL SCIENCE AND MANAGEMENT

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)	Explain the concept of energy flow in an ecosystem. Why is it said to be unidirectional?	[5] 1	2
Q.1(b)	Describe the composition of the Earth's atmosphere and the role of its major components.	[5] 1	2
Q.2(a)	Discuss the role of greenhouse gases in maintaining Earth's temperature.	[5] 2	2
Q.2(b)	Explain the significance of the ozone layer and the impact of its depletion.	[5] 2	3
Q.3(a)	Define water pollution. Discuss its major causes with examples.	[5] 3	2
Q.3(b)	Discuss the role of vehicular emissions in contributing to air pollution.	[5] 3	2
Q.4(a)	Explain the Activated sludge wastewater treatment process.	[5] 4	2
Q.4(b)	How do electrostatic precipitators help in controlling air pollution?	[5] 4	2
Q.5(a)	Describe the key steps involved in the EIA process.	[5] 5	2
Q.5(b)	Define sustainable development. Why is it important for future generations?	[5] 5	3

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