

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

CLASS: B.TECH / BHMCT / IMSC  
BRANCH: BT/CHEMICAL/CIVIL/MECH/PIE/HMCT/ICH/QEDS/IMH/IPH

SEMESTER : 2<sup>nd</sup>  
SESSION : SP/2023

SUBJECT: CE101 ENVIRONMENTAL SCIENCE

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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|        |  | CO    | BL |
|--------|--|-------|----|
| Q.1(a) | Draw and explain different types of ecological pyramids.                                       | [5] 1 | 2  |
| Q.1(b) | Differentiate between grassland and detritus food chains with example.                         | [5] 1 | 4  |
| Q.2(a) | Explain the effects of particulate matter and gaseous pollutants.                              | [5] 2 | 2  |
| Q.2(b) | Discuss the working principle of scrubbers and cyclones.                                       | [5] 2 | 2  |
| Q.3(a) | Explain the chlorination process for water treatment in details.                               | [5] 3 | 2  |
| Q.3(b) | Classify different types of secondary water treatment.   | [5] 3 | 2  |
| Q.4(a) | Discuss soil pollution in brief.   | [5] 4 | 2  |
| Q.4(b) | Explain the collection and transport functional elements for municipal solid waste management. | [5] 4 | 2  |
| Q.5(a) | Explain noise pollution control measures in brief.   | [5] 5 | 2  |
| Q.5(b) | Discuss the sources and effects of radioactive pollution.                                      | [5] 5 | 2  |

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