

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

**CLASS: M.TECH/PRE-PHD  
BRANCH: REMOTE SENSING**

**SEMESTER : I  
SESSION : MO/2022**

**SUBJECT: RS517 REMOTE SENSING IN CLIMATE CHANGE AND ENVIRONMENTAL IMPACT ASSESSMENT**  
**TIME: 3:00 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.
- 

- |  |               |     |
|--|---------------|-----|
| Q.1(a) Describe weather and climate. How can they be distinguished?  | [CO1,2;BL 2,] | [2] |
| Q.1(b) Describe greenhouse gases (GHGs). Appraise the natural or anthropogenic causes leading to rise in GHG and global warming. | [CO1; BL 3]   | [3] |
| Q.1(c) Explain El Niño/La Niña Southern Oscillation (ENSO). How can it impact the weather pattern?                               | [CO1,BL2]     | [5] |
|  |               |     |
| Q.2(a) What are the types of droughts?   | [CO2; BL 2]   | [2] |
| Q.2(b) Explain in detail one drought indices.  | [CO2; BL 2]   | [3] |
| Q.2(c) Explain the impact of climatic variation on vegetation growth rhythm.   | [CO2; BL 3]   | [5] |
|  |               |     |
| Q.3(a) Discuss Snow and ice characteristics.   | [CO3; BL 2]   | [2] |
| Q.3(b) How can these help in understanding their natural properties?   | [CO3; BL 3]   | [3] |
| Q.3(c) Describe major types of glaciers found globally. How can glacier health be significant to indicate climate change?        | [CO3; BL 3]   | [5] |
|  |               |     |
| Q.4(a) Describe the scopes of EIA and EMP? What is the methodology in EIA?   | [CO4; BL 2]   | [2] |
| Q.4(b) Elaborate the relation between EMP and EIA?   | [CO4; BL 3]   | [3] |
| Q.4(c) Distinguish between Category A and Category B Project and describe.   | [CO4; BL 4]   | [5] |
|  |               |     |
| Q.5(a) In context of climate change, what is understood by UNFCC?  | [CO5; BL 3]   | [2] |
| Q.5(b) Explain the objectives and functional mandates of Kyoto protocol.   | [CO5; BL 4]   | [3] |
| Q.5(c) What is REDD? Explain its objectives.   | [CO1; BL 4]   | [5] |

:::::24/11/2022:::::E