

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

**CLASS:** M.Tech/Pre-PhD  
**BRANCH:** Remote Sensing

**SEMESTER :** I  
**SESSION :** MO23

**SUBJECT: RS517 REMOTE SENSING IN CLIMATE CHANGE AND ENVIRONMENTAL IMPACT ASSESSMENT**

**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) | What is meant by weather and climate? How do they differ from each other?  | [CO1; BL 2] | [5] |
| Q.1(b) | What are greenhouse gases (GHGs). How do natural and anthropogenic causes lead to rise in GHG and Global warming.                          | [CO1; BL 3] | [5] |
|        |  |             |     |
| Q.2(a) | How are plants affected by changes in carbon dioxide levels in the atmosphere?   | [CO2; BL 2] | [3] |
| Q.2(b) | Define Drought? Name two different drought monitoring techniques and explain one of the different drought monitoring techniques in detail. | [CO2; BL 2] | [3] |
| Q.2(c) | Discuss the present scenario between increasing population and changing climate effect on agriculture.                                     | [CO2; BL3]  | [4] |
|        |  |             |     |
| Q.3(a) | What is meant by ELA and Mass Balance of a Glacier? Elaborate.   | [CO3; BL 2] | [5] |
| Q.3(b) | Describe major types of glaciers found globally. How can glacier health be significant to indicate climate change?                         | [CO3; BL 3] | [5] |
|        |  |             |     |
| Q.4(a) | What is the impact assessment? Why do we need EIA?   | [CO4; BL 2] | [5] |
| Q.4(b) | What are the important components of EIA? Write down the details of it.  | [CO4; BL 3] | [5] |
|        |  |             |     |
| Q.5(a) | In context of climate change, what is understood by UNFCC?   | [CO5; BL 3] | [5] |
| Q.5(b) | Explain the objectives and functional mandates of Kyoto protocol.  | [CO5; BL 4] | [5] |

:::24/11/2023 E:::