| BIRLA INSTITUTE OF TECHNOLOGY, MESRA, RANCHI  |                |  |  |                 |  |  |
|---|----------------|--|--|-----------------|--|--|
| (END SEMESTER EXAMINATION)  |                |  |  |                 |  |  |
| CLASS:  | M.Tech         |  |  | SEMESTER : II   |  |  |
| BRANCH:   | Remote Sensing |  |  | SESSION : SP/22 |  |  |
|   | ·              |  |  |                 |  |  |
| SUBJECT: REMOTE SENSING IN CLIMATE CHANGE AND ENVIRONMENTAL IMPACT ASSESSMENT, RS 517             |                |  |  |                 |  |  |
| TIME:   |                |  |  | 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 |                |  |  |                 |  |  |

5. Tables/Data hand book/Graph paper etc. to be supplied to the candidates in the examination hall.

| Q.1(a) | What is the difference between weather and climate?[CO1,2;BL 2]  | [2] |
|--------|--|-----|
| Q.1(b) | What are the greenhouse gases? Which greenhouse gas contributes more, and it is natural or   | [3] |
|        | anthropogenic? [CO2; BL 2]   |     |
|        | OR   |     |
|        | Write short notes on Green House effect [CO2; BL 2]  |     |
| Q.1(c) | What is the southern oscillation? How does it impact in Indian monsoon pattern? [CO2,BL2]<br>OR                                      | [5] |
|        | Explain the El Nino-La Nina weather phenomena in brief and associated winds and their pattern.                                       |     |
|        | [CO2,BL2]  |     |
|        |  |     |
| Q.2(a) | What is carbon accounting? Explain in brief?[CO2; BL 3]  | [3] |
| Q.2(b) | What is food security? Illustrate the aspects of food security[CO1,3; BL 2]  | [4] |
| Q.2(c) | How is remote sensing useful in detection and monitoring the impact of climate change on changing crop<br>pattern? [CO3; BL 3]<br>OR | [3] |
|        | How is remote sensing useful in detection and monitoring the impact of climate change on tree line?                                  |     |
|        | [CO3; BL 3]  |     |
|        |  |     |
| Q.3(a) | Name one of the indices to be used for Snow cover mapping and justify the selection of bands for that                                | [3] |
| Q.5(u) | index. [CO3; BL 2]   | [2] |
| Q.3(b) | What is the relevance of snow cover mapping? Explain in details[CO3; BL 3]   | [3] |
| Q.3(c) | Explain the effects of global warming on glaciers.[CO4; BL 3]  | [4] |
|        | OR   | -   |
|        | How is remote sensing useful in monitoring changing water extent of surface water bodies? [CO4; BL 3]                                |     |
|        |  |     |
| Q.4(a) | What is EIA? Explain the methodology involved in EIA?[CO4; BL 3]   | [5] |
| Q.4(b) | What is the relation between EMP and EIA?[CO4; BL 2,3]   | [2] |
|        | OR   |     |
|        | What is EMP? Explain[CO4; BL 4]  |     |
| Q.4(c) | Compare Category A and Category B Project? [CO4; BL 4]   | [3] |
|        |  |     |
| Q.5(a) | Explain the importance of Global policies? [CO4; BL 2,3]   | [2] |
|        |  |     |
| Q.5(b) | What is Kyoto protocol? Describe in brief.[CO4; BL 1,2]  | [3] |
| Q.5(c) | Explain UNFCCC and its objectives. [CO4; BL 1,2]   | [5] |
|        | OR   |     |
|        | What is REDD? Explain its objectives.[CO4; BL 1,2]   |     |
|        | OR   |     |
|        | What is IPCC? Describe the important activities of IPCC.[CO4; BL 1,2]  |     |
|        |  |     |
|        |  |     |