

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

CLASS: MTECH/PRE-PHD
BRANCH: RS

SEMESTER: II/NA
SESSION: SP/19

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) How can 'weather' and 'climate' be distinguished? What are the major natural factors on which the climate depends? [5]
- Q.1(b) What are the associated effects of weather variations and what their impacts in Indian Monsoon pattern? Explain with suitable example. [5]
- Q.2(a) How vegetation (Particularly forest) is affected by Climate change? How Remote Sensing is useful in detection and monitoring this. Illustrate with suitable diagram if required. [5]
- Q.2(b) Draw the phenology curve considering NDVI values of one full year for Paddy crop in Ranchi district (single crop) and show the following: [5]
- Onset of greening
 - Onset of senescence
 - Timing of Maximum of the Growing Season
 - Growing season length
- Q.3(a) How can remote sensing be useful in mapping and monitoring water and snow cover? [5]
- Q.3(b) What is the significance of snow-melt runoff forecasting in the backdrop of climate change? [5]
- Q.4(a) Describe different EIA methods. [5]
- Q.4(b) What do you understand by Demographic Impact Assessment? Explain with proper example. [5]
- Q.5(a) What is United Nations Framework Convention on Climate Change (UNFCCC) and how many countries signed this during the Earth Summit at Rio de Janeiro in 1992? [5]
- Q.5(b) Explain the ultimate objective and principles of UNFCCC. [5]

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