

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

**CLASS: MSc  
BRANCH: GEOINFORMATICS**

**SEMESTER : III  
SESSION : MO/18**

**SUBJECT: SGI3003 GEOINFORMATICS IN RESOURCE MANAGEMENT  
TIME: 3.00 HOURS**

**FULL MARKS: 60**

**INSTRUCTIONS:**

1. The question paper contains 7 questions each of 12 marks and total 84 marks.
  2. Candidates may attempt any 5 questions maximum of 60 marks.
  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 are resources classified? Give the classification system.   | [6] |
| Q.1(b) | Explain the concept of Sustainable Development.   | [6] |
| Q.2(a) | How is soil an important land resource? Discuss its degradation.  | [6] |
| Q.2(b) | How can remote sensing be useful in mapping soil degradation? Elaborate.  | [6] |
| Q.3(a) | What is the utility of remote sensing in evaluation of water resources?   | [6] |
| Q.3(b) | Write a note on Ground Water contamination.   | [6] |
| Q.4(a) | How can Remote Sensing be applied to map Agricultural Resources? Explain.   | [6] |
| Q.4(b) | Give the methodology the Forest Survey of India has adopted to quantify the Forests of India.                         | [6] |
| Q.5(a) | Write notes on i) Urban land use and ii) Transportation network   | [6] |
| Q.5(b) | What is an Urban Information System?  | [6] |
| Q.6(a) | Why, in your opinion, are non-conventional energy resources gaining popularity?                                       | [6] |
| Q.6(b) | How may Geoinformatics be applied to locate land for harnessing solar energy?   | [6] |
| Q.7(a) | Why is Forest Fire an important issue for the forests? Please put down opinion from the Geoinformatics point of view. | [6] |
| Q.7(b) | How can the Universal Soil Loss Equation (USLE) help in Soil Erosion Modelling? Discuss.                              | [6] |

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