

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

**CLASS: MUP/Pre-PhD  
BRANCH: ARCHITECTURE**

**SEMESTER : I  
SESSION:MO/2023**

**SUBJECT: AR604 DISASTER MANAGEMENT & PLANNING**

**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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|        |   | CO    | BL |
|--------|---|-------|----|
| Q.1(a) | Define Vulnerability. Outline the various factors and types of vulnerability with suitable examples.            | [5] 1 | 1  |
| Q.1(b) | Enumerate the different types of landslides and their causes. Discuss the landslide vulnerability in India.     | [5] 1 | 2  |
| Q.2(a) | Explain the different types of risk assessment methods.   | [5] 2 | 2  |
| Q.2(b) | Explain any three types of technological hazards by citing suitable case examples.                              | [5] 1 | 1  |
| Q.3(a) | Write a short note on urban risk and vulnerability.   | [5] 1 | 2  |
| Q.3(b) | Discuss the incentives for disaster risk reduction in the context of land use planning and management.          | [5] 2 | 1  |
| Q.4(a) | Enumerate the application of GIS and remote sensing in pre and post-flood mitigation strategies.                | [5] 3 | 3  |
| Q.4(b) | Outline the role and responsibilities of armed forces, police forces, SDRF and NDRF during and after disasters. | [5] 1 | 1  |
| Q.5(a) | Write a short note on the Disaster Management Act, 2005.  | [5] 2 | 1  |
| Q.5(b) | Enumerate the key points of the Hyogo framework and Sendai framework.   | [5] 2 | 1  |

:::28/11/2023:::E