

BALLARI INSTITUTE OF TECHNOLOGY & MANAGEMENT

(Autonomous Institute under Visvesvaraya Technological University, Belagavi)

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Course Code

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Fourth Semester B.E. Degree Examinations, July 2026

DISASTER MANAGEMENT AND MITIGATION

Duration: 3 hrs

Max. Marks: 100

Note: 1. Answer any FIVE full questions choosing ONE full Question from each Module.
 2. Missing data, if any, may be suitably assumed

<u>Q. No</u>	<u>Question</u>	<u>Marks</u>	<u>(RBTL:CO: PI)</u>
<u>MODULE – 1</u>			
1.	a. Explain the disaster management cycle with a neat diagram.	10	(2 :1: 1.2.1)
	b. Explain the following terms in detail: (i) Disaster (ii) Vulnerability (ii) Hazard (iv) Capacity (v) Risk.	10	(2 :1: 1.2.1)
(OR)			
2.	a. Explain vulnerability and classify its types with suitable real-world examples.	10	(2 :1: 1.3.1)
	b. Describe the major disasters that have occurred in India since 1970 and summarize their key impacts.	10	(2 :1: 2.2.4)
<u>MODULE – 2</u>			
3.	a. What are earthquakes? List out the causes of an earthquake and list the major earthquakes in India with a magnitude greater than 6.0.	10	(2 :2: 1.4.1)
	b. Illustrate various types of tectonic plate movements that lead to earthquakes using neat diagrams.	10	(2 :2: 2.2.4)
(OR)			
4.	a. What is tsunami? Identify three causes, consequences and impact of tsunami waves.	10	(2 :2: 1.4.1)
	b. Explain the types of droughts and illustrate each with suitable real-world examples.	10	(2 :2: 2.2.4)
<u>MODULE – 3</u>			
5.	a. Explain the seismic zones of India and their characteristics.	10	(2 :3: 1.3.1)
	b. Explain in detail at least five possible risk reduction measures for floods.	10	(2 :3: 1.4.1)
(OR)			
6.	a. Explain types of tsunami warnings.	10	(2 :3: 1.3.1)
	b. Compile the history of tsunamis affecting India and present it in a tabular format including year, location, and key impacts.	10	(2 :3: 2.2.4)
<u>MODULE – 4</u>			
7.	a. Discuss disaster preparedness and management strategies with suitable examples of their implementation.	10	(2 :4: 1.3.1)
	b. Why is drought a slow onset disaster? Identify five factors that cause drought.	10	(2 :4: 2.2.4)

(OR)**Note: (RBTL - Revised Bloom's Taxonomy Level: CO - Course Outcome: PI- Performance Indicator)**

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| 8. | a. | Explain structural and non-structural disaster mitigation. | 10 | (2 :4: 1.4.1) |
| | b. | Explain the difference between magnitude and intensity of an earthquake. How are they measured? | 10 | (2 :4: 2.2.4) |

MODULE – 5

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| 9. | a. | Suggest suitable risk reduction measures for landslide mitigation in vulnerable areas with relevant examples. | 10 | (3 :5: 1.3.1) |
| | b. | Explain programs and policies for disaster mitigation. | 10 | (2 :5: 1.4.1) |

(OR)

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| 10. | a. | What are the recent developments in remote sensing and geographic information systems (GIS) for disaster risk reduction? | 10 | (2 :5: 1.4.1) |
| | b. | Explain the distribution pattern of tsunami in India. | 10 | (3 :5: 2.2.4) |

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