

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY GURAJADA VIZIANAGARAM
IV B. Tech I Semester Advanced Supplementary Examinations March 2025

DISASTER MANAGEMENT

(Open Elective)

Time: 3 hours

Max. Marks: 70

Answer any **FIVE** Questions **ONE** Question from **Each unit**

All Questions Carry Equal Marks

UNIT-I

1. a) Describe the Disaster Management cycle and explain each stage with examples? [7M]
b) Evaluate the causes and consequences of landslides. What are the effective mitigation strategies? [7M]

(OR)

2. a) Define Disaster Management and explain its interdisciplinary nature. [7M]
b) Explain the causes and impacts of earthquakes. How can disaster management reduce their effects? [7M]

UNIT-II

3. a) Discuss the role of industries in disaster management. State how can industrial accidents be prevented and managed. [7M]
b) Explain transport hazard dynamics and how disasters in the transport sector can be managed effectively. [7M]

(OR)

4. a) Explain the potential hazards posed by rail and aircraft accidents and the management strategies involved. [7M]
b) Describe the risks associated with groundwater contamination during disasters and the strategies for management? [7M]

UNIT-III

5. a) Discuss the concept of social vulnerability in the context of disaster management. [7M]
b) Explain the relationship between sustainable development and disaster risk reduction. How can sustainable development practices reduce the long-term impacts of disasters [7M]

(OR)

6. a) Explain the concept of risk reduction through the financial management of disaster-related losses. [7M]
b) Discuss the importance of risk assessment and vulnerability mapping in disaster management. [7M]

UNIT-IV

7. a) Describe the role of electrical substations, roads, and bridges in disaster mitigation. [7M]
b) Discuss the role of geospatial information in agricultural drought assessment. [7M]
- (OR)
8. a) Explain the role of Remote Sensing (RS) and Geographic Information Systems (GIS) in disaster management. [7M]
b) Explain the role of treatment plants and process facilities in disaster management. [7M]

UNIT-V

9. a) Discuss the role of the Red Cross and Red Crescent Movement in disaster management. [7M]
b) Explain community-based disaster recovery and its role in social capital. [7M]
(OR)
10. a) Discuss the essentials of school disaster education and its importance in disaster preparedness. [7M]
b) Describe the concept of designing resilience in communities and building capacity for action in disaster management. [7M]
