



Programme Name & Branch : Common to B.Tech
 Course Code and Course Name : BCLE212L/Natural Disaster Mitigation and Management
 Faculty Name(s) : Dr. OM Suganya
 Class Number(s) : VL2025260104328
 Date of Examination : 11.10.25
 Exam Duration : 90 minutes

Maximum Marks: 50

General instruction(s):

Answer All Questions

- Course Outcomes
 CO 2. Develop skills in different disasters and its mitigation methods.
 CO 3. Examine how quickly to response and prepared for different disasters.

Q. No	Question	M	CO	BL
1.	A recent monsoon season has caused a significant increase in the frequency of landslides and mudflows in a hilly region. (a) Define landslide and briefly describe its primary causes (3 marks). (b) Propose and elaborate on at least four effective structural and non-structural mitigation methods that local authorities can implement to reduce the risk and impact of future landslides and mudflows in this region (7 marks).	10	2	3
2.	An area prone to seismic activity is currently facing the dual threat of a major earthquake and a potential subsequent Tsunami. (a) Explain the concept of Tsunami and identify the main safety precautions an individual should take immediately upon feeling a strong, prolonged earthquake, specifically in coastal areas, to prepare for a potential tsunami (4 marks). (b) Discuss the critical elements of a rapid disaster response plan for an earthquake, focusing on the immediate action that community emergency to save lives, services must take within the first hour to save lives, such as search and rescue and initial medical aid (6 marks).	10	3	3
3.	Analyze the causes and potential immediate and long-term mitigation strategies for both a Chemical/Industrial Disaster. Elaborate on the critical elements of a rapid response plan and the necessary preparedness measures that communities and local authorities must establish to minimize the loss of life and property for these two distinct disaster types	10	3	4
4.	Explain the different types of transport accidents caused by human error and technological failures in vehicle parts. Also, discuss how the losses from such accidents can be reduced and how these accidents impact the economic condition of India.	10	3	4
5.	Describe the essential pre-event preparedness measures and structural mitigation strategies that must be implemented by the organizing committee and disaster management authorities to prevent a catastrophic fire, focusing on aspects like site layout, material selection, crowd management, and emergency exit planning.	10	3	4