

JK Lakshmipat University Jaipur
INSTITUTE OF ENGINEERING AND TECHNOLOGY

End Term Examination, Dec 2023
B. Tech. All branches, Semester VII (OE)

Roll No.....

CE1206: Disaster Management:

Time: 2 hrs 30 Min

Max. Marks: 40

Instructions to students:

1. Do not write anything other than your roll number on the question paper.
2. Assume suitable data wherever required and mention it clearly.
3. Writing appropriate units, nomenclature and drawing neat sketches/schematics/ flow charts wherever, required are an integral part of the answer.
4. Attempt all questions.

Q-1	Name the various agencies and ministries in India responsible for various types of disasters.	3 Marks (CO-2)
Q-2	What are the different phases of disaster management?	4 Marks (CO-1)
Q-3	What do you understand by the TRIAGE? In what type of disasters, it is more suitable? Recently three disasters/accidents (1. Orrisa Train accident 2. Morbi bridge collapse 3. Silkyara Tunnel collapse) have occurred in India. For which accident this TRIAGE is most and least beneficial and why?	2+2+4 Marks (CO-1)
Q-4	What is community-based disaster management? Why it is required and what are the most common elements of CBDM?	2+4 Marks (CO-1)
Q-5	What is the role of National Disaster Management Authority in disaster preparedness?	4 Marks (CO-1)
Q-6	What are the various goals of disaster nursing?	3 Marks (CO-2)
Q-7 (Case Study)	Scenario: In 2022, a major urban area in India experienced a prolonged power outage due to a natural disaster. The electrical infrastructure suffered extensive damage, leading to extended downtime. The local utility company has sought your expertise to analyze the causes and impacts of the outage and recommend strategies to enhance the resilience of the electrical system. Question: a. Analyze the causes of the extended power outage. Identify and discuss key factors that contributed to the disruption of the electrical system. b. Evaluate the system impact of the loss of major components during the outage. Propose strategies to minimize the impact of future incidents on critical components.	6 Marks (CO-4)
Q-8 (Case Study)	Scenario: The electrical grid in a rapidly urbanizing area in India is prone to various natural disasters, including cyclones and floods. To improve disaster resilience, there is a proposal to integrate Internet of Things (IoT) technologies into the electrical systems. Analyze and propose strategies for implementing IoT in the context of disaster management for the electrical grid. Question: a. Identify and discuss specific vulnerabilities within electrical systems during natural disasters, citing examples from the Indian context. Explain how these vulnerabilities can impact the reliability and functionality of the electrical supply system. b. Propose and elaborate on IoT applications that could enhance disaster management in electrical systems. Consider aspects such as real-time monitoring, predictive analytics, and remote-control functionalities.	6 Marks (CO-5)