

June 14, 2024 10:30 am - 01:30 pm 1T01437 - B.E.(Mechanical/Chemical/EXTC Engineering)(SEM-VII)
(Choice Base Credit Grading System)(R- 2019-20)(C Scheme) / 42885 -
Disaster Management and Mitigation Measures ILOC I QP CODE: 10057109

(3 Hours)

[Total Marks :80]

Notes:

1. **Question No 1 is compulsory.**
2. Answer **any 3** from remaining questions.
3. **Illustrate** you answers with **neat sketches** wherever necessary.
4. Write proper **Question** and **sub question numbers** as assigned in this question paper.

Q.1 Answer any four questions: (20)

- a) Justify the significance of studying Disaster Management, highlighting its role in enhancing resilience, minimizing risks, and promoting sustainable development. 5
- b) Define and differentiate between Risk and Vulnerability in the context of disaster management. 5
- c) Provide an overview of various types of Manmade disasters, elucidating their causes, characteristics, and impacts. 5
- d) Analyze the enduring impacts of disasters on affected communities, infrastructure, and socio-economic systems. 5
- e) Discuss Climate change, focusing on its underlying causes, ecological repercussions, and implications for disaster risk management. 5
- f) Define Bioshield and explore its utility in disaster mitigation, particularly in addressing specific hazards such as floods, landslides, and coastal erosion. 5

Q.2 a) Explore the scope and responsibilities of the NIDM in disaster preparedness, training, research, and policy formulation 10

- b) Describe the Search and Rescue (SAR) procedure in disaster response, supported by a case study illustrating its implementation and effectiveness. 10

Q.3 a) Investigate the applications of GIS in disaster management, highlighting its role in spatial analysis, risk assessment, and decision-making. 10

- b) Assess the contributions of various NGOs in Disaster Management, outlining their roles in emergency response, community engagement, and capacity-building initiatives. Additionally, list major NGOs operating globally in this field. 10

Q.4 a) Examine the multifaceted components of Disaster Management, including preparedness, response, recovery, and mitigation strategies. 10

- b) Classify different types of droughts and outline structural mitigation measures suitable for drought-prone regions. 10

- Q.5** a) Evaluate various fundraising mechanisms for disaster management, considering their effectiveness, sustainability, and ethical implications. **10**
- b) Define Capacity Development and illustrate its application through a case study of Community-Based Disaster Management (CBDM), emphasizing community empowerment, resilience-building, and sustainable development. **10**
- Q.6** a) Enumerate essential Do's and Don'ts for disaster preparedness and response, providing practical guidelines for individuals and communities to mitigate risks and ensure safety. **10**
- b) Discuss the roles and functions of various government agencies in Disaster Management in India, emphasizing their coordination and collaboration efforts. **10**
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