



**IES COLLEGE OF ENGINEERING, CHITILAPPILLY**  
**DEPARTMENT OF CIVIL ENGINEERING**

**QUESTION BANK**

**MODULE I**

1. What is the mechanism by which stratospheric ozone protects earth from harmful UV rays?
2. Explain the various systems of earth?
3. Write a short note on cyclones?
4. Explain monsoons in India?
5. Explain in detail various layers in atmosphere?
6. Write a short short note on greenhouse effect?
7. How climate change can affect disaster?
8. Explain the following terms:
  - a) Vulnerability
  - b) Risk
  - c) risk assessment
  - d) risk mapping
  - e) capacity
9. Define Vulnerability. Also explain physical and socio-economic vulnerability in detail.
10. Differentiate: Natural Disaster & Man-made Disaster.
11. Describe in brief the causes of climate change
12. What are disasters? What are their causes?
13. Explain the different types of cyclones and the mechanism of their formation
14. Explain the following terms in the context of disaster management (a) exposure (b) resilience (c) disaster risk management (d) early warning systems, (e) damage assessment (f) crisis counselling (g) needs assessment

**MODULE II**

1. What is hazard mapping? What are its objectives?
2. What is participatory hazard mapping? How is it conducted? What are its advantages?



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3. Explain the applications of hazard maps
4. Explain the types of vulnerabilities and the approaches to assess them
5. Explain briefly the concept of ‘disaster risk’
6. Explain different types of hazards
7. Explain the physical, social, economic and environmental vulnerability
8. Briefly explain the procedures in disaster risk assessment?
9. Explain the approaches in disaster risk assessment
10. Explain the applications of hazard maps

**MODULE III**

1. Explain briefly the concept of ‘disaster risk’
2. List the strategies for disaster risk management ‘before’, ‘during’ and ‘after’ a disaster
3. What is disaster preparedness?
4. Explain the components of a comprehensive disaster preparedness strategy
5. What is disaster prevention? Distinguish it from disaster mitigation giving examples
6. Explain the core elements of disaster risk management
7. Explain the factors that decide the nature of disaster response
8. Explain the different disaster response actions
9. Which are the different types of responses
10. Which are the objectives and requirements in disaster response

**MODULE IV**

1. Briefly explain the levels of stakeholder participation in the context of disaster risk reduction
2. Explain the importance of communication in disaster management
3. Explain the benefits and costs of stakeholder participation in disaster management
4. How are stakeholders in disaster management identified?
5. What are the steps to effective disaster communication? What are the barriers to communication?



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6. What are the barriers to communication?
7. Explain capacity building in the context of disaster management
8. Briefly explain the structural and non- structural measures in capacity building concept
9. Explain crisis counseling
10. Explain the methods and barriers in disaster communication

**MODULE V**

1. What are Tsunamis? How are they caused?
2. Explain the earthquake zonation of India
3. Explain the salient features of the National Policy on Disaster Management in India
4. Explain the guiding principles and priorities of action according to the Sendai Framework for Disaster Risk Reduction
5. List out the common disaster types in India
6. Explain Sendai Framework for disaster risk reduction
7. Briefly explain institutional arrangements for disaster management in India
8. Explain about disaster safe designs and constructions.
9. Explain about National Guidelines and Plans on Disaster Management
10. Explain guiding principles in Sendai Framework



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### GENERAL

Explain the importance of the subject “Disaster Management” as a part of B. Tech. study.

Write short note on Disaster Management.

Explain in brief about global disaster trends.

Suppose you are appointed as an in-charge of disaster management cell of a village which is categorized under Zone V for Earthquake. Write in brief your plan of action towards

- Prevention and Mitigation of Disasters,
- Early Warning System, Preparedness and Capacity Development;
- Awareness During Disaster, Evacuation and Disaster Communication;
- Search and Rescue, Relief and Rehabilitation;
- Post-disaster Damage and Needs Assessment;
- Restoration of Critical Infrastructure;
- Early Recovery, Reconstruction and Redevelopment

Explain about Disaster Communication System.

Explain about pre-disaster risk assessment, analysis, risk mapping, zonation and microzonation.

Explain about IDNDR.

Discuss in brief about mega disasters of India and lessons learnt from them.

Explain about Hyogo Framework of Action.

Explain about Structural & Non Structural mitigation of disasters.

Explain about role of Government (local, state and national) agencies in disaster management.

Explain about S & T Institutions for Disaster Management in India.

How disaster can influence the development?

Classify different types of disasters.

Differentiate between preparedness and mitigation.

Enlist various central agencies to monitor different disaster in India.

Enlist and explain briefly the governing elements of emergency communication.

List various relief and rehabilitation activities during natural disaster.

What is the role of EOC?

Write the roles of NDMA, NDRF and SDRF.

Highlight the disaster management act -2005 in brief.

What precaution can be taken for Fire Hazard in industries?

Explain incident command system of disaster management in brief.

Signify the term Search and Rescue in disaster management.

Discuss the disaster profile of India.

Discuss the financial mechanism of disaster management in India.

Explain the role of district level administration for disaster management.



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- Describe the terms Risk mapping and Evacuation.
- Describe various phases of Disaster Management in detail.
- Write a short note on Early warning system
- Discuss briefly the disaster management of various Technological disasters
- Describe the national disaster management structure of India
- Enlist and explain various types of capacity in brief.
- How Land use planning and development regulations can help for disaster management? Support your answer with suitable example.
- Justify the statement “ NGOs play key role in disaster management “ with suitable example.
- Discuss biological disaster and its prevention strategies.
- Enlist various mega disasters of India and explain any one in brief.
- Justify the statement “Disaster can effect various developments at considerable extent” with suitable examples. Support your answer with various risks associated with disaster.
- Enlist and explain various Rescue stages in brief.
- Explain the role of various components of Geoinformatics for disaster management.
- Explain about disaster safe design and construction in detail.
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- Discuss the role of Indian Space Research Organization for disaster management.
- Giving suitable example discuss the role of an Engineer in case of any natural disaster.
- Write a note on biological disaster.
- Discuss major issues involved in disaster preparedness.
- Discuss important guiding principles of rehabilitation and reconstruction.
- Discuss the safety measures to avoid the train accidents.
- Discuss the role of the disaster management authorities in India.
- Write a brief note on effects of cold waves and heat waves.
- Write short note on National Disaster Management Policy.
- Name the technological disasters. Discuss any one such disaster.
- Discuss in brief the disaster management strategies.
- Write the major features of Emergency Operation Centre.
- Discuss the role of non-government agencies in case of disaster.
- Write a note on Disaster Management Cycle.
- Discuss the essential features of damage assessment.
- Explain about disaster resistant designs and constructions.
- Discuss the process of risk assessment.
- Discuss the prevention and mitigation of disasters.
- Discuss the role of Geo-informatics in disaster management.
- Make an overview of recent trends in disaster management.
- Discuss the role of information technology in disaster prevention.
- Explain the role and functions of a disaster communication system.



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- Discuss the paradigm shift in disaster management in India
- Explain International Decade for National Disaster Reduction (IDNDR)
- Discuss Yokohama strategy
- Write a short note on Seismic Micro-zonation.
- Discuss in brief the Disaster Management Act 2005
- Enumerate on our National Guidelines and Plans on Disaster Management
- What is remote sensing and how is it useful in Disaster Management?
- What is the role of Non-Government and Inter-Governmental Agencies in Disaster Management?
- What is the significance of Land Use Planning and Development Regulations in Disaster Management?
- What is the role of GIS in Disaster Management?
- Explain any one disaster where RS and GIS technology proved to be a vital tool for Disaster Mitigation
- What do you mean by Structural and Non-Structural Mitigation for Disaster Management?
  
- Define the term Vulnerability with suitable example.
- Justify the statement “ Development process modify natural hazard “.
- Explain the term Urban Flooding and its impacts.
- What are geological hazards and explain them in brief.
- Discuss manmade disaster with suitable example.
- Enlist various pre-disaster activities to reduce human and property losses.
- Discuss the term risk mapping.
- Explain the features of Yokohama strategy in brief.
- Enlist and categorized various categories of cyclone as per IMD.
- Enlist various causes of Tsunami.
- Discuss the role of GIS for disaster management.
- Discuss DCWDS, MSS and AES-SNG
- Explain the prevention of Biological Disaster.
- Discuss about Incident Command System.
- Discuss about Disaster Awareness.
- What is Drought ? Explain various types of Droughts in brief.
- Describe the role of District and Sub-district administration in disaster management.
- How do you carry out Mapping of prominent disaster prone area? Also discuss the factors affecting such mapping.
- Enlist various indications of possible flooding.
- Explain various considerations with reference to disaster safe design and construction for Earthquake and Flood.
- Enlist and define various phases of disaster management cycle.
- State the role of NDMA and SDRF in disaster management.
- How Economic and Social development does increase disaster risk ?
- Explain about Search and Rescue activity and its objectives.
- Discuss about climate change and urban disaster.
- State the contribution of development planning in incorporating disaster risk with suitable example.



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- Enlist various work place fire hazards.
- Classify various types of capacity under capacity development
- Describe about Early warning system. Also discuss about elements of Early warning system.
- Enlist various losses due to Flood and Earthquake.
- State the application of science and technology for disaster management.
- Discuss national guidelines on Disaster management.
- Describe initial development stage of Cyclone and mature tropical Cyclone.
- State the application of Geoinformatics for disaster management.
- Discuss about features of Disaster Management Act-2005 in detail.
  
- Define the term Disaster and describe various phases of Disaster.
- What do you mean by the terms: Hazard, Vulnerability, Risk and Capacity?
- Give the classification of different types of Disasters.
- Describe the adverse impacts and mitigation measures for any one Hydro-Meteorological Disaster.
- Describe in brief the causes of climate change.
- Discuss the Disaster Management Act 2005
- Describe in detail the Disaster Management cycle with neat sketch
- Explain the following terms: Preparedness, Mitigation and Risk Mapping.
- Write a short note on paradigm shift in disaster management in India.
- Explain about National Guidelines and Plans on Disaster Management.
- Describe the role of NDMA, NDRF and SDRF for Disaster Management.
- Write a note on Disaster and development.
- Discuss Yokohama strategy
- Describe the role of National Disaster Communication Network (NDCN) for disaster management.
- What do you mean by Early warning system?
- Explain about the existing Hazard Forecasting and early Warning Network in India for Tsunami.
- Discuss about mega disasters of India and lessons learnt from them.
- Describe the role of EOC for the Disaster Management.
- Describe the role of Land use planning and development regulations in Disaster management.
- Describe the disaster safe construction for earthquake in detail.
- Enlist S & T institutions for disaster management in India. Explain about any one S & T Institutions.
- Describe various Disaster Communication Systems.
- Describe the application of remote sensing and GIS for the Disaster Management.
- Describe the role of GPS in management of Disaster.
- What is the role of Non-Government and Inter-Governmental Agencies in Disaster Management?
- Explain in detail structural and non-structural mitigation measures.



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