

SRM VALLIAMMAI ENGINEERING COLLEGE

**(An Autonomous Institution)
SRM Nagar, Kattankulathur – 603 203**

DEPARTMENT OF COMPUTER APPLICATIONS

QUESTION BANK



I SEMESTER M.C.A.

ACE402 - DISASTER MANAGEMENT

Regulation – 2024

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Prepared by

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SUBJECT : ACE402 - DISASTER MANAGEMENT

SEM/YEAR: I/I

UNIT - I: INTRODUCTION				
Disaster: Definition, Factors and Significance; Difference between Hazard and Disaster; Natural and Manmade Disasters: Difference, Nature, Types and Magnitude.				
UNIT - I: PART – A				
Q.No	Question	BT Level	Competence	Course Outcome
1	Define the term 'Disaster'.	BTL-1	Remember	CO1
2	List out the factors in Disaster Management,	BTL-1	Remember	CO1
3	What is the significance of Disaster?	BTL-1	Remember	CO1
4	Define Hazard.	BTL-1	Remember	CO1
5	Distinguish between Hazards and Disasters,	BTL-1	Remember	CO1
6	What is Natural hazards?	BTL-1	Remember	CO1
7	What is Man-made hazards?	BTL-1	Remember	CO1
8	List out the mangrove products.	BTL-1	Remember	CO1
9	What do you understand by impacts of disasters?	BTL-1	Remember	CO1
10	List out the objectives of disaster management.	BTL-1	Remember	CO1
11	State the activities carried out in post-disaster phase.	BTL-1	Remember	CO1
12	Define Risk.	BTL-1	Remember	CO1
13	What is mean by famine?	BTL-1	Remember	CO1
14	Mention any two examples for Man-made hazards.	BTL-2	Understand	CO1
15	Specify any two examples for Natural hazards.	BTL-2	Understand	CO1
16	Interpret the term tornadoes.	BTL-2	Understand	CO1
17	What is the effect of limnic eruption?	BTL-2	Understand	CO1
18	What steps would you suggest, where the hazard could not be eliminated?	BTL-2	Understand	CO1
19	Differentiate between pre-disaster phase and post-disaster phase.	BTL-2	Understand	CO1
20	How mitigation vary from prevention in disaster management?	BTL-2	Understand	CO1
21	Why man-made disasters occurred?	BTL-2	Understand	CO1
22	How will you classify the environmental factors?	BTL-2	Understand	CO1

23	How response different from recovery in disaster management?	BTL-2	Understand	CO1
24	What works will you carry out in risk assessment?	BTL-2	Understand	CO1
25	Interpret the term blizzards.	BTL-2	Understand	CO1

UNIT - I: PART – B

Q.No	Question	Mark	BT Level	Competence	Course Outcome
1	Describe the different phases of Disaster Management with neat diagram.	16	BTL-3	Apply	CO1
2	Explain the various disaster types with suitable example.	16	BTL-3	Apply	CO1
3	Illustrate the crisis in power sector.	16	BTL-3	Apply	CO1
4	Discuss about the Natural disasters and its mitigation strategies.	16	BTL-3	Apply	CO1
5	Explain the techniques for reducing oil fire.	16	BTL-3	Apply	CO1
6	Describe terrorism and write down the typology of terrorism.	16	BTL-3	Apply	CO1
7	Define mining and explain methods of extraction.	16	BTL-3	Apply	CO1
8	Explain taking proactive steps to eliminate or avoid risks.	16	BTL-3	Apply	CO1
9	Analyze the steps involved in Disaster Management cycle.	16	BTL-4	Analyze	CO1
10	Compare Hazards vs Disaster with suitable example.	16	BTL-4	Analyze	CO1
11	Analyze the Manmade Disasters with the parameters Nature, Types and Magnitude.	16	BTL-4	Analyze	CO1
12	Explain the conservation benefits of mangroves.	16	BTL-4	Analyze	CO1
13	Compare Manmade disaster and Natural Disaster with suitable example.	16	BTL-4	Apply	CO1
14	Discuss the challenges associated with it and determining Manmade disasters.	16	BTL-5	Evaluate	CO1
15	Evaluate the significance of Disaster Management.	16	BTL-5	Evaluate	CO1
16	Summarize the factors involved in Disaster Management.	16	BTL-6	Create	CO1
17	Discuss the natural disaster based on Nature, Types and Magnitude.	16	BTL-6	Create	CO1
18	Evaluate the characteristics of Mangrove Areas.	16	BTL-5	Evaluate	CO1

UNIT II REPERCUSSIONS OF DISASTERS AND HAZARDS

Economic Damage, Loss of Human and Animal Life, Destruction of Ecosystem. Natural Disasters: Earthquakes, Volcanisms, Cyclones, Tsunamis, Floods, Droughts And Famines, Landslides And Avalanches, Man-made disaster: Nuclear Reactor Meltdown, Industrial Accidents, Oil Slicks and Spills, Outbreaks of Disease and Epidemics, War and Conflicts.

UNIT II PART – A

Q.No	Questions	BT Level	Competence	Course Outcome
1	Define Droughts.	BTL-1	Remember	CO2
2	List out the three parts of avalanches.	BTL-1	Remember	CO2
3	What is meant by flash flood?	BTL-1	Remember	CO2
4	What is Epidemics?	BTL-1	Remember	CO2
5	Write a short note on repercussions of disasters,	BTL-1	Remember	CO2
6	State a short note on Industrial Accidents.	BTL-1	Remember	CO2
7	List the various impacts of floods	BTL-1	Remember	CO2
8	What is a tsunami? How it is generated?	BTL-1	Remember	CO2
9	What are landslides?	BTL-1	Remember	CO2
10	What should be the action-plan for safeguarding from earthquakes?	BTL-1	Remember	CO2
11	Who is a perpetrator of terrorism?	BTL-1	Remember	CO2
12	Mention the uses of IED.	BTL-1	Remember	CO2
13	Define Avalanches.	BTL-1	Remember	CO2
14	Justify the India is a disaster-prone country.	BTL-2	Understand	CO2
15	Why earthquakes occur?	BTL-2	Understand	CO2
16	How to determine snow pack is safe?	BTL-2	Understand	CO2
17	Distinguish between Pre-flood and Post-flood measures.	BTL-2	Understand	CO2
18	What are the causes of industrial accidents?	BTL-2	Understand	CO2
19	How the natural calamities can be classified in different ways?	BTL-2	Understand	CO2
20	Write down the different causes of floods.	BTL-2	Understand	CO2
21	Interpret the term flood mitigations.	BTL-2	Understand	CO2
22	What are the major causes of drought?	BTL-2	Understand	CO2
23	How cyclones are formed?	BTL-2	Understand	CO2
24	Interpret the term Drought.	BTL-2	Understand	CO2
25	How can man-made disaster classified?	BTL-2	Understand	CO2

UNIT II PART – B

Q.No	Question	Mark	BT Level	Competence	Course Outcome
1	Describe flood and explain causes of flood.	16	BTL-3	Apply	CO2
2	Discuss oil pollution and oil tanker accidents in sea.	16	BTL-3	Apply	CO2
3	Explain the causes and effects of oil pollution in bays and seas.	16	BTL-3	Apply	CO2

4	Discuss about the following: (i) Oil spills and reasons for oil spills in seas (ii) Oil slicks and methods of cleaning the sea from oil slicks	8 8	BTL-3	Apply	CO2
5	Describe the Outbreaks of post-disaster diseases.	16	BTL-3	Apply	CO2
6	Explain the different mitigations measures for floods.	16	BTL-3	Apply	CO2
7	Discuss various losses due to droughts.	16	BTL-3	Apply	CO2
8	Discuss various factors contributing to accidents.	16	BTL-3	Apply	CO2
9	Explain how can the adverse environmental impacts of oil spills be controlled.	16	BTL-4	Analyze	CO2
10	Compare the 'unsafe acts' and 'unsafe conditions'.	16	BTL-4	Analyze	CO2
11	Discuss the flood preparedness and flood fighting measures.	16	BTL-4	Analyze	CO2
12	Describe the cause, action and products of a volcano.	16	BTL-4	Analyze	CO2
13	Compare the differences between structured measures for floods and non-structured measures for floods.	16	BTL-4	Analyze	CO2
14	Evaluate the causes of traffic accidents. How these accidents can be minimized?	16	BTL-5	Evaluate	CO2
15	Formulates the steps involved in Nuclear Reactor Meltdown.	16	BTL-5	Evaluate	CO2
16	Summarizes the types of soil erosion.	16	BTL-6	Create	CO2
17	Discuss the impacts of cyclones. Explain the different measures for its mitigation.	16	BTL-6	Create	CO2
18	Explain the various drought control measures.	16	BTL-6	Create	CO2

UNIT – III DISASTER PRONE AREAS IN INDIA

Study of Seismic Zones; Areas Prone to Floods and Droughts, Landslides and Avalanches; Areas Prone to Cyclonic and Coastal Hazards with Special Reference to Tsunami; Post-Disaster Diseases and Epidemics

Q.No	Questions	BT Level	Competence	Course Outcome
UNIT III PART – A				
1	Name the most common droughts prone areas in India.	BTL-1	Remember	CO3
2	State any two avalanches prone areas in India.	BTL-1	Remember	CO3
3	Mention any two landslides prone areas in India.	BTL-1	Remember	CO3
4	Specify any two flood prone areas in India.	BTL-1	Remember	CO3
5	Write down cyclones prone areas in India.	BTL-1	Remember	CO3
6	Name the most common tsunami prone areas in India.	BTL-1	Remember	CO3
7	State common post-disaster diseases.	BTL-1	Remember	CO3
8	Mention some of the major disasters in india.	BTL-1	Remember	CO3

9	Differentiate between landslides and avalanches.	BTL-2	Understand	CO3
10	Distinguish between a cyclone and a tsunami.	BTL-2	Understand	CO3
11	What is the Richter scale used for?	BTL-1	Remember	CO3
12	List two human activities that can trigger landslides.	BTL-1	Remember	CO3
13	Name two post-disaster diseases caused by contaminated water.	BTL-1	Remember	CO3
14	How are Post-disaster classified?	BTL-2	Understand	CO3
15	What is a coastal hazard? Give one example.	BTL-1	Remember	CO3
16	Name two technological tools used for tsunami warning systems.	BTL-1	Remember	CO3
17	Which region in India is most prone to avalanches?	BTL-1	Remember	CO3
18	Why is early warning important in disaster management?	BTL-2	Understand	CO3
19	How is the magnitude of an earthquake measured?	BTL-2	Understand	CO3
20	Mention two diseases commonly occurring after floods.	BTL-1	Remember	CO3
21	What causes avalanches in mountainous regions?	BTL-1	Remember	CO3
22	What are avalanches?	BTL-2	Understand	CO3
23	What are the long-term environmental effects of coastal hazards like tsunamis and storm surges?	BTL-2	Understand	CO3
24	What are coastal hazards?	BTL-2	Understand	CO3
25	Name two coastal states in India prone to cyclones.	BTL-1	Remember	CO3

UNIT III PART – B					
Q.No	Question	Mark	BT Level	Competence	Course Outcome
1	Discuss hazardous and vulnerable profile of India with reference to disasters.	16	BTL-3	Apply	CO3
2	Explain various Seismic Zones in India and their characteristics.	16	BTL-3	Apply	CO3
3	Discuss about landslides prone area.	16	BTL-3	Apply	CO3
4	Discuss about avalanches prone area.	16	BTL-3	Apply	CO3
5	Explain in detail flood prone area.	16	BTL-3	Apply	CO3
6	Describe about the droughts prone area.	16	BTL-4	Analyze	CO3
7	Discuss bio-geographical classification of India.	16	BTL-4	Analyze	CO3
8	Explain about mountain areas and coastal areas in India.	16	BTL-5	Evaluate	CO3
9	Discuss avalanches causes, effects, and disaster management strategies with respect to the Himalayan region.	16	BTL-6	Create	CO3
10	Examine the interrelationship between climate change and the increasing frequency of floods and droughts in India.	16	BTL-3	Apply	CO3
11	Discuss the importance of hazard zonation mapping in disaster-prone areas. How does it help in reducing vulnerabilities?	16	BTL-3	Apply	CO3
12	Discuss the mitigation and adaptation strategies for disaster management in India.	16	BTL-3	Apply	CO3
13	Analyze the impact of landslides in hilly regions of India. Discuss the mitigation and preparedness strategies.	16	BTL-4	Analyze	CO3
14	Explain the concept of disaster risk reduction. How can it be applied in earthquake-prone zones in India?	16	BTL-4	Analyze	CO3

15	Explain the role of remote sensing and GIS in disaster management.	16	BTL-4	Analyze	CO3
16	Evaluate the socio-economic impacts of earthquakes in urban versus rural areas.	16	BTL-5	Evaluate	CO3
17	Discuss the challenges of disaster management in mountainous terrains with reference to landslides and avalanches.	16	BTL-6	Create	CO3
18	Evaluate the role of government and NGOs in managing post-disaster health crises and epidemics.	16	BTL-5	Evaluate	CO3

UNIT – IV DISASTER PREPAREDNESS AND MANAGEMENT

Preparedness: Monitoring of Phenomena Triggering a Disaster or Hazard; Evaluation of Risk: Application of Remote Sensing, Data from Meteorological and Other Agencies, Media Reports: Governmental and Community Preparedness.

Q.No	Questions	BT Level	Competence	Course Outcome
UNIT IVPART – A				
1	What do you understand about response?	BTL-1	Remember	CO4
2	What is Disaster Mapping?	BTL-1	Remember	CO4
3	Define Disaster mitigation.	BTL-1	Remember	CO4
4	What do you understand by 'response' in connection with disaster management?	BTL-1	Remember	CO4
5	Mention the role of early warning systems in disaster preparedness	BTL-1	Remember	CO4
6	Sate the meaning of "hazard monitoring".	BTL-1	Remember	CO4
7	List two examples of natural hazards that can be monitored.	BTL-1	Remember	CO4
8	Name two agencies in India involved in disaster monitoring.	BTL-1	Remember	CO4
9	Specify two meteorological phenomena that can trigger disasters.	BTL-1	Remember	CO4
10	Write two examples of community-based preparedness activities.	BTL-1	Remember	CO4
11	Define the term "risk evaluation" in disaster management.	BTL-1	Remember	CO4
12	What is remote sensing in disaster management?	BTL-1	Remember	CO4
13	What mitigation measures can be taken?	BTL-1	Remember	CO4
14	Interpret the term 'Disaster Preparedness'.	BTL-2	Understand	CO4
15	Distinguish between disaster prevention and disaster recovery.	BTL-2	Understand	CO4
16	Why mitigation is more important?	BTL-2	Understand	CO4
17	How can satellite imagery help in disaster preparedness?	BTL-2	Understand	CO4
18	Differentiate between hazard and vulnerability.	BTL-2	Understand	CO4
19	How can GIS help in disaster risk evaluation?	BTL-2	Understand	CO4
20	How can elevation data help in landslide risk assessment?	BTL-2	Understand	CO4
21	How do media reports aid disaster response?	BTL-2	Understand	CO4
22	Why is public awareness important in disaster preparedness?	BTL-2	Understand	CO4
23	Which kind of remote sensing data is useful for forest fire detection?	BTL-2	Understand	CO4
24	Expand the term CBDRR.	BTL-2	Understand	CO4
25	How can schools participate in disaster preparedness?	BTL-2	Understand	CO4

UNIT IV PART – B					
Q.No	Question	Mark	BT Level	Competence	Course Outcome
1	Explain the National Disaster Management Plan and objectives and scope of DMP.	16	BTL-3	Apply	CO4
2	Discuss the emergency support functions and their nodal agency.	16	BTL-3	Apply	CO4
3	Describe regarding communication during disaster.	16	BTL-3	Apply	CO4
4	Illustrate about search, rescue and relief operations.	16	BTL-3	Apply	CO4
5	Explain about National policy of disaster management and its features.	16	BTL-3	Apply	CO4
6	Discuss organization setup for handling disasters at National and State level.	16	BTL-3	Apply	CO4
7	Explain the following: (i) National Disaster Management Authority (ii) State Disaster Management Authority (iii) Disaster Response Force	5 5 6	BTL-3	Apply	CO4
8	Describe various pre-disaster and during disaster preparedness.	16	BTL-3	Apply	CO4
9	Analyze the applications of remote sensing in disaster risk assessment.	16	BTL-4	Analyze	CO4
10	Describe the role of remote sensing in managing floods and droughts.	16	BTL-4	Analyze	CO4
11	Explain how GIS and remote sensing together contribute to hazard mapping.	16	BTL-4	Analyze	CO4
12	Analyze the types of hazards that can be monitored and the technologies used for the same.	16	BTL-4	Analyze	CO4
13	Explain the role of public awareness campaigns in reducing disaster risks.	16	BTL-3	Apply	CO4
14	Evaluate the role of meteorological data in forecasting and disaster preparedness.	16	BTL-5	Evaluate	CO4
15	Formulate the steps involved in the significance of data sharing between meteorological and disaster management agencies.	16	BTL-5	Evaluate	CO4
16	Elaborate on government and community efforts be integrated for better disaster preparedness.	16	BTL-6	Create	CO4
17	Elaborate on community-based disaster preparedness measures with suitable case studies.	16	BTL-6	Create	CO4
18	Explain the challenges in risk evaluation using satellite data.	16	BTL-5	Evaluate	CO4

UNIT –V TECHNOLOGIES AND CASE STUDIES				
Disaster Risk: Concept and Elements, Disaster Risk Reduction, Global and National Disaster Risk Situation. Techniques of Risk Assessment, Global Co-Operation in Risk Assessment and Warning, People’s Participation in Risk Assessment. Strategies for Survival.				
Q.No	Questions	BT Level	Competence	Course Outcome

UNIT V PART – A				
1	What is disaster risk?	BTL-1	Remember	CO5
2	List the three key elements of disaster risk.	BTL-1	Remember	CO5
3	Define the term "hazard" in the context of disaster risk.	BTL-1	Remember	CO5
4	What do you mean by "vulnerability"?	BTL-1	Remember	CO5
5	Define "capacity" in disaster risk.	BTL-1	Remember	CO5
6	Mention any two natural disasters common in South Asia.	BTL-1	Remember	CO5
7	What is disaster risk reduction?	BTL-1	Remember	CO5
8	Name two goals of DRR.	BTL-1	Remember	CO5
9	Mention two principles of DRR.	BTL-1	Remember	CO5
10	Specify two international frameworks for DRR.	BTL-1	Remember	CO5
11	Which Indian agency handles disaster risk reduction?	BTL-1	Remember	CO5
12	List two countries frequently affected by earthquakes.	BTL-1	Remember	CO5
13	Write two tools used for disaster risk assessment.	BTL-1	Remember	CO5
14	How does exposure contribute to disaster risk?	BTL-2	Understand	CO5
15	Differentiate between DRR and disaster response.	BTL-2	Understand	CO5
16	State the role of WMO in disaster risk management.	BTL-2	Understand	CO5
17	How can local knowledge help in risk assessment?	BTL-2	Understand	CO5
18	Distinguish between structural and non-structural measures used in disaster risk reduction.	BTL-2	Understand	CO5
19	Examine the national and global trends in disaster risk with reference to recent events.	BTL-2	Understand	CO5
20	How can local communities contribute to effective disaster risk management?	BTL-2	Understand	CO5
21	Differentiate between top-down and bottom-up approaches to disaster risk reduction.	BTL-2	Understand	CO5
22	Identify one example of people's participation in a successful risk reduction initiative.	BTL-2	Understand	CO5
23	Extract the concept of 'hazard zonation'.	BTL-2	Understand	CO5
24	Classify the techniques of Risk Assessment.	BTL-2	Understand	CO5
25	Identify one UN body involved in global disaster risk coordination.	BTL-2	Understand	CO5

UNIT V PART – B					
Q.No	Question	Mark	BT Level	Competence	Course Outcome
1	Explain the process and techniques of risk assessment in disaster management.	16	BTL-3	Apply	CO5
2	Describe the role of hazard mapping and vulnerability analysis in risk assessment.	16	BTL-3	Apply	CO5
3	Discuss the importance of community-based risk assessment.	16	BTL-3	Apply	CO5
4	Explain the role of remote sensing and GIS in disaster risk assessment.	16	BTL-3	Apply	CO5
5	Describe the objectives and priority areas of the Sendai Framework for Disaster Risk Reduction (2015–2030).	16	BTL-3	Apply	CO5
6	Explain how international bodies like the UNDRR and WMO support countries in disaster risk reduction.	16	BTL-3	Apply	CO5

7	Discuss the impact of climate change on global disaster risks.	16	BTL-3	Apply	CO5
8	Outline a comprehensive risk reduction plan for an urban earthquake-prone area.	16	BTL-3	Apply	CO5
9	Describe structural and non-structural measures used in disaster risk reduction.	16	BTL-4	Analyze	CO5
10	Analyze India's national disaster risk profile and the strategies being used to manage it.	16	BTL-4	Analyze	CO5
11	Explain how traditional knowledge and people's participation enhance risk reduction.	16	BTL-4	Analyze	CO5
12	Explain the role of NGOs and civil society in disaster risk management.	16	BTL-4	Analyze	CO5
13	Analyze top-down and bottom-up approaches to disaster risk reduction.	16	BTL-4	Analyze	CO5
14	Propose a model for school-level disaster risk reduction and preparedness.	16	BTL-5	Evaluate	CO5
15	Evaluate the significance of global cooperation in disaster early warning systems.	16	BTL-5	Evaluate	CO5
16	Suggest a survival strategy for a community frequently affected by floods.	16	BTL-6	Create	CO5
17	Summarize strategies for survival during natural disasters with real-life examples.	16	BTL-6	Create	CO5
18	Evaluate the effectiveness of community-based disaster preparedness programs.	16	BTL-5	Evaluate	CO5