

Hall Ticket No

Question Paper Code: ACE533



INSTITUTE OF AERONAUTICAL ENGINEERING

(Autonomous)

Dundigal, Hyderabad - 500 043

MODEL QUESTION PAPER - I

B. Tech V Semester End Examinations, November- 2019

Regulations: R16

DISASTER MANAGEMENT AND MITIGATION

(CIVIL ENGINEERING)

Time: 3 hours

Max. Marks: 70

Answer ONE Question from each Unit

All Questions Carry Equal Marks

All parts of the question must be answered in one place only

UNIT – I

1. a) Write down the types of environmental hazards and Disasters? [7M]
b) Write an account on different approaches to disaster management and relation with human ecology. [7M]
2. a) What are steps involved in risk communication? [7M]
b) Discuss the guiding principles of disaster mitigation and elaborate the problem areas in disaster mitigation. [7M]

UNIT – II

3. a) Write short notes on: a) cold waves b) Heat waves c) Soil Erosion [7M]
b) What is the difference between natural disaster and man-made disaster? [7M]
4. a) Examine the role of corporate social responsibility as an emerging avenue in managing disasters. [7M]
b) Discuss the role of disaster management authorities in disaster management. [7M]

UNIT – III

5. a) What are the mitigation measures to be taken at the time of earthquakes? [7M]
b) Write a note on man-made landslides. State what are the mitigation measures at the time of land-slides. [7M]
6. a) Explain briefly about the effects of earthquakes on the environment. [7M]
b) Write a note on man-made landslides. Describe what are the different landslides. [7M]

UNIT – IV

7. a) Discuss in brief the various floods control measures. [7M]
b) Write a note on the drought control measures adopted across the globe. [7M]
8. a) Suggest the best management practices of soil erosion and sedimentation. [7M]
b) Illustrate the floods hazards of India in the past years [7M]

UNIT – V

9. a) What is cyclone? How can people be warned of it beforehand? [7M]
b) Describe the structural mitigations and non- structural mitigations that should be restored to in case of floods. [7M]
10. a) Enlist the different stages of disaster management. Write in detail about pre-disaster stage. [7M]
b) Elaborate on the various organizations which are involved in the research and mitigation of disasters. [7M]



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COURSE OBJECTIVES:

The course should enable the students to:

The course should enable the students to:	
I	Identify the major disaster types and develop an understanding of modern disaster management.
II	Recognize and develop awareness of the chronological phases of natural disaster response and refugee relief operations.
III	Understand the key concepts of disaster management related to development and the relationship of different disaster management activities.
IV	Categorize the organizations that are involved in natural disaster assistance and relief system.

COURSE OUTCOMES (COs):

COs	Course Outcome
CO 1	Understand to describe the basic types of Environmental hazards and disasters. Understand how to react effectively to natural, man-made, and technological threats.
CO 2	Understand how to react effectively to natural, man-made, and planetary hazards.
CO 3	Explore the history of the field and comprehend how past events are earthquake, landslides and volcanic hazards.
CO 4	Describe the basic concepts of the emergency management cycle mitigation, preparedness, response, and recovery
CO 5	Recognizes the stakeholders in disaster management system, their jurisdiction and responsibilities

COURSE LEARNING OUTCOMES (CLOs):

ACE533.1	Integrate knowledge and to analyze, evaluate and manage the different public health aspects of disaster events at a local and global levels, even when limited information is available.
ACE533.2	Analyze and evaluate the environmental, social, cultural, economic, legal and organizational Aspects influencing vulnerabilities and capacities to face disasters. and to know about different types of environmental hazards
ACE533.3	Obtain knowledge on different types of natural and man- made disasters. Work theoretically and practically in the processes of disaster management (disaster risk reduction, response and recovery)
ACE533.4	Describe endogenous and exogenous hazards their harmful effects to the environment. Case studies of India
ACE533.5	Analyze, and communicate information on risks, relief needs and order to formulate strategies for mitigation.
ACE533.6	Understand the Mitigation and control measures of exogenous hazards.
ACE533.7	Understand different approaches of different phases
ACE533.8	Capacity to analyze and evaluate research work on the field of emergencies and disaster.
ACE533.9	Demonstrating insight into the potential and limitations of science, its role in society and people's responsibility for how it is used. And emerging approaches of disasters.

ACE533.10	Analyze the future scenarios with the ability to clearly present and discuss their conclusions and the knowledge and arguments.
ACE533.11	Understand integrated approach for disaster preparedness, mitigation & awareness; Mitigation.
ACE533.12	Understand different types of institution for disaster mitigation and management
ACE533.13	Design and perform research on the different aspects of the emergencies and disaster.
ACE533.14	Relate their interconnections, particularly in the field of the Public Health aspects of the disasters.
ACE533.15	Understand different approaches to prevent disasters.
ACE533.16	Understanding the race process of dealing with work place hazards.
ACE533.17	Identification of natural calamities that tends to hazards and disasters.
ACE533.18	Understand the integrated approach for disaster preparedness, mitigation & awareness; mitigation
ACE533.19	Analyze the Meteorological observatory, seismological observatory, volcanology institution
ACE533.20	Understand the working of institution of urban & regional planners, engineering council, world meteorological organizations (WMO).
ACE533.21	Understand the world federation of engineering organizations (WFED).

MAPPING OF SEMESTER END EXAMINATION - COURSE OUTCOMES

SEE Question No.	Course Learning Outcomes		Course Outcomes	Blooms Taxonomy Level	
1	a	ACE533.1	Integrate knowledge and to analyze, evaluate and manage the different public health aspects of disaster events at a local and global levels, even when limited information is available.	CO 1	Understand
	b	ACE533.2	Analyze and evaluate the environmental, social, cultural, economic, legal and organizational Aspects influencing vulnerabilities and capacities to face disasters. and to know about different types of environmental hazards	CO 1	Understand
2	a	ACE533.3	Obtain knowledge on different types of natural and man- made disasters. Work theoretically and practically in the processes of disaster management (disaster riskreduction, response and recovery)	CO 1	Understand
	b	ACE533.1	Integrate knowledge and to analyze, evaluate and manage the different public health aspects of disaster events at a local and global levels, even when limited information is available.	CO 1	Remember
3	a	ACE533.9	Demonstrating insight into the potential and limitations of science, its role in society and people's responsibility for how it is used. And emerging approaches of disasters.	CO 2	Understand
	b	ACE533.5	Analyze, and communicate information on risks, relief needs and order to formulate strategies for mitigation.	CO 2	Understand
4	a	ACE533.7	Understand different approaches of different phases	CO 2	Understand
	b	ACE533.7	Understand different approaches of different phases	CO 2	Understand
5	a	ACE533.10	Analyze the future scenarios with the ability to clearly present and discuss their conclusionsand the knowledge and arguments.	CO 3	Understand
	b	ACE533.11	Understand integrated approach for disaster preparedness, mitigation & awareness;Mitigation.	CO 3	Remember
6	a	ACE533.14	Relate their interconnections, particularly in the field of the Public Health aspects of the disasters.	CO 3	Remember

	b	ACE533.11	Understand integrated approach for disaster preparedness, mitigation & awareness;Mitigation.	CO 3	Understand
7	a	ACE533.18	Understand the integrated approach for disaster preparedness, mitigation & awareness; mitigation	CO 4	Understand
	b	ACE533.17	Identification of natural calamities that tends to hazards and disasters.	CO 4	Understand
8	a	ACE533.16	Understanding the race process of dealing with work place hazards.	CO 4	Remember
	b	ACE533.18	Understand the integrated approach for disaster preparedness, mitigation & awareness; mitigation	CO 4	Understand
9	a	ACE533.19	Analyze the Meteorological observatory, seismological observatory, volcanology institution	CO 5	Understand
	b	ACE533.20	Understand the working of institution of urban & regional planners, engineering council, world meteorological organizations (WMO).	CO 5	Understand
10	a	ACE533.20	Understand the working of institution of urban & regional planners, engineering council, world meteorological organizations (WMO).	CO 5	Understand
	b	ACE533.21	Understand the world federation of engineering organizations (WFED).	CO 5	Understand

Signature of Course Coordinator

HOD, CE