# National Institute of Technology, Hamirpur (HP)
## End Semester Examination - 2023
### B. Tech 3rd Year (5th Semester)
## CE 307: Disaster Management
### Open Elective-I

Time: 3 Hours

Maximum Marks: 50

## *Note: Attempt all the questions*

### A. Multiple-Choice Questions (MCQs) - 1 mark each (Total: 10 marks)

1. What is the correct sequence of the disaster management cycle?
a. Mitigation, Preparedness, Response, Recovery
b. Preparedness, Mitigation, Response, Recovery
c. Mitigation, Response, Preparedness, Recovery
d. Preparedness, Recovery, Mitigation, Response

2. Which organization is the apex authority for disaster management in India?
a. NDA
b. NDMA
c. NIDM
d. NDRF

3. What is the primary aim of an early warning system?
a. To prevent disasters from happening
b. To provide real-time information about disasters
c. To disseminate information about disasters after they occur
d. To provide emergency response services

4. Which of the following is NOT a factor to consider when designing disaster-safe buildings?
a. Building materials
b. Location
c. Cost
d. Structural design

5. Who heads the National Disaster Management Authority in India?
a) President
b) Cabinet Secretary
c) Ministry of Home Affairs
d) Prime Minister

6. What is the Disaster Management Act, 2005?
a) A law that lays down institutional, legal, financial, and coordination mechanisms for disaster management in India

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b) A policy document that outlines the roles and responsibilities of various agencies in disaster management

c) A set of guidelines for disaster preparedness and response

d) A framework for international cooperation in disaster management

7. What is the primary cause of the severity of impacts of disasters in urban areas?
A. Rapid urbanization
B. Climate change
C. Population growth
D. All of the above

8. What is the main goal of disaster mitigation?
A. To reduce the impact of disasters on society
B. To increase the number of disasters that occur
C. To promote the growth of disaster-related industries
D. To encourage people to move to riskier areas

9. The 1984 Bhopal Gas Disaster is a kind of:
A. Natural disaster
B. Manmade disaster
C. Both A and B
D. None of the above

10. Which of the following describes the build-up and release of stress during an earthquake?
A. The Modified Mercalli Scale
B. The elastic rebound theory
C. The principle of superposition
D. The plate tectonic theory

## B. Descriptive Questions - 10 marks each (Total: 40 marks)

1. Explain the short- and long-term consequences of landslides and outline effective strategies for their management, control, and stabilization.
2. Summarize the Sendai Framework for Disaster Risk Reduction, highlighting its global targets. Also, outline the ten-point agenda on disaster risk reduction presented at the Asian Ministerial Conference on Disaster Risk Reduction (AMCDRR 2016).
3. Discuss the various types of geo-informatics and elaborate on the applications of geo-informatics in disaster management. Provide a comprehensive explanation for each type and its application.
4. (a) Define the Disaster Communication System, outlining its types. Identify crucial components for an effective early warning system and explain varied strategies for its dissemination.

   (b) Address challenges in Indian disaster management and propose solutions.