

**M.Sc. ENVIRONMENTAL SCIENCE
THIRD SEMESTER
INTRODUCTION TO HAZARDS AND DISASTERS
MEV-303(D)**

**SET
A**

[USE OMR FOR OBJECTIVE PART]

Duration: 1.30 hrs.

Full Marks: 35

(Objective)

Time: 15 min.

Marks: 10

1X10=10

Choose the correct answer from the following:

1. What is the fundamental definition of a Hazard in the context of disaster management?
a. The realization of potential damage or loss.
b. The susceptibility of a community to suffer damage.
c. A dangerous phenomenon, substance, human activity, or condition that may cause loss of life, injury, or other health impacts.
d. The ability of a system to recover quickly after an event.
2. An event like a nuclear power plant leak or a large-scale chemical spill is classified as which type of hazard?
a. Geophysical hazard
b. Hydro-meteorological hazard
c. Technological hazard
d. Biological hazard
3. Which of the following is an example of a "slow-onset" hazard?
a. Tsunami
b. Volcanic eruption
c. Drought
d. Flash flood
4. According to common international definitions, a Disaster occurs when a hazard event:
a. Causes any level of physical damage.
b. Strikes a populated area, regardless of impact severity.
c. Causes severe disruption and losses that exceed the ability of the affected community or society to cope using its own resources.
d. Is predicted with 100% certainty by meteorologists.
5. Which of the following equations best represents the basic prerequisites for a Disaster to occur?
a. $\text{Hazard} + \text{Capacity} = \text{Disaster}$
b. $\text{Capacity} / \text{Vulnerability} = \text{Disaster}$
c. $\text{Hazard} + \text{Vulnerability} + \text{Insufficient Capacity} = \text{Disaster}$
d. $\text{Risk} / \text{Exposure} = \text{Disaster}$
6. A catastrophic disaster is often characterized by the complete breakdown of which critical societal function(s)?

- a. Political stability
- c. Education systems

- b. Infrastructure and livelihoods
- d. Media coverage and communication

7. Vulnerability, in disaster studies, refers to:

- a. The probability of a hazard striking a specific location.
- c. The immediate relief effort mobilized after an event.

- b. The characteristics and circumstances of a community, system, or asset that make it susceptible to the damaging effects of a hazard.
- d. The government's legal framework for emergency response.

8. Which of the following correctly represents the *chronological order* of the phases in the **Disaster Management Cycle**?

- a. Mitigation → Preparedness → Response → Recovery
- c. Response → Recovery → Mitigation → Preparedness

- b. Preparedness → Mitigation → Response → Recovery
- d. Recovery → Response → Mitigation → Preparedness

9. In the Disaster Management Cycle, the **transition between response and recovery** phases primarily focuses on—

- a. Immediate relief and long-term risk reduction
- c. Short-term rehabilitation leading to long-term development

- b. Evacuation planning and infrastructure reconstruction
- d. Hazard mapping and policy formulation

10. The **Mitigation** phase of the Disaster Management Cycle is best characterized by which of the following?

- a. Activities aimed at minimizing the adverse impacts of future disasters
- c. Long-term efforts for economic revitalization after a disaster

- b. Actions that provide emergency relief and rescue operations
- d. Short-term warning dissemination and evacuation drills

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(Descriptive)

Time : 1 hrs. 15 min.

Marks : 25

[Answer question no.1 & any two (2) from the rest]

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| 1. How is a "disaster" typically defined, and what is its main distinction from a hazardous event that does not result in significant impact? | 5 |
| 2. How would you define a "hazard" in the context of disaster management, and what is a key concept in identifying its potential? | 5+5=10 |
| 3. Can you explain two different types of vulnerability that communities or individuals might experience in the face of a potential hazard? | 10 |
| 4. Discuss in detail the different stages involved in the Disaster. Explain how each stage contributes to reducing the overall impact of disasters, citing suitable examples from recent disasters in India. | 10 |
| 5. Discuss the Disaster Management Cycle in detail, explaining the interrelationship among its different phases. Illustrate how an effective disaster management cycle can reduce vulnerability and enhance community resilience, with suitable examples from recent disasters in India. | 10 |

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