

Chapter 6

Natural Hazards – Understanding of Disaster Management in Practice

I. Choose the correct answer:

Question 1.

..... is a event which causes enormous physical damage to property, loss of life and change in the environment.

- a) Hazard
- b) Disaster
- c) Recovery
- d) mitigation

Answer:

- b) Disaster

Question 2.

Activities that reduce the effects of disaster

- a) Preparation
- b) Response
- c) Mitigation
- d) Recovery

Answer:

- c) Mitigation

Question 3.

A sudden movement (or) trembling of the earth's crust is called as

- a) Tsunami
- b) Earthquake
- c) Fire
- d) Cyclone

Answer:

- b) Earthquake

Question 4.

A sudden overflow of water in a large amount caused due to heavy rainfall is called

- a) Flood

- b) Cyclone
- c) Drought
- d) Seasons

Answer:

- b) Cyclone

Question 5.

Road accidents can be avoided by permitting the persons who have is allowed to drive vehicle.

- a) Ration card
- b) License
- c) permission
- d) Documents

Answer:

- b) License

II. Fill in the blanks:

1. A hazard is a event that can causes harm or damage to human and their property.

Answer:

disaster

2. Activities taken during a disaster is called

Answer:

Response

3. Displacement of water can produce one or more huge destructive waves known as

Answer:

Tsunami

4. In case of fire accidents call the nearby police station or the no for the fire service.

Answer:

101

5. Disaster management refers to of lives and property during a natural or manmade disaster.

Answer:
conservation

III. Match the following:

A	B
1. Earthquake	a) Gigantic waves
2. Cyclone	b) Creak / Fault
3. Tsunami	c) Uneven rainfall
4. Industrial accident	d) Eye of the storm
5. Drought	e) Carelessness

Answer:

A	B
1. Earthquake	b) Creak / Fault
2. Cyclone	d) Eye of the storm
3. Tsunami	a) Gigantic waves
4. Industrial accident	e) Carelessness
5. Drought	c) Uneven rainfall

IV. Consider the following statement and tick the appropriate answer:

Question 1.

Assertion (A) : In the modern world we can't live happily everyday.

Reason (R) : Due to pollution and environmental degradation we are undergoing natural hazard and Disaster

- a) A and R are correct and A explains R
- b) A and R are correct but A does not explain R
- c) A is incorrect but R is correct

d) Both A and R are in correct

Answer:

a) A and R are correct and A explains R

Question 2.

Assertion (A) : Sudden movement (or) trembling of the earth's crust is called an Earthquake.

Reason (R) : Movement of the tectonic plates, mass wasting, surface fault all leads to earthquake.

a) A and R are correct and A explains R

b) A and R are correct but A does not explain R

c) A is in correct but R is correct

d) Both A and R are in correct

Answer:

a) A and R are correct and A explains R

V. Answer the following briefly:

Question 1.

Define Hazard.

Answer:

Generally, a hazard is a dangerous phenomenon, substance, human activity, or condition that may cause loss of life, injury, health impacts, property damage, loss of livelihoods, services, social and economic disruption or environmental damage.

Question 2.

What is a disaster?

Answer:

A disaster can be generally defined as "A serious disruption in the society causing widespread material, economic, social or environmental losses.

Question 3.

What are the 4 concepts of the Disaster management cycle?

Answer:

1. Prevention
2. Mitigation
3. Preparedness

4. Response
5. Recovery
6. Rehabilitation

Question 4.

Name any two agency which involves in the warring system in Tamil Nadu.

Answer:

- Tamil Nadu State Disaster Response Force (SDRF) has been constituted with a strength of 80 Police Personnel.
- They have been trained in disaster management and rescue operations in consultation with the National Disaster Response Force(NDRF).

Question 5.

Write about any three effects of the flood.

Answer:

- Loss of life and property
- Displacement of people
- Spread of contagious diseases such as Cholera and Malaria etc.

Question 6.

Give any four Rail safety tips.

Answer:

Rail Safety Tips:

- Stay alert. Train scans come from either direction at any time.
- Never sit on the edge of the Station Platform.
- Cross the tracks safely.

Question 7.

Name any four different industry which goes under industrial disaster frequently.

Answer:

- Nuclear industries
- Chemical industries
- Match and crackers factory
- Cotton and Paper industry.

VI. Distinguish between:

Question 1.

Earthquake and Tsunami.

Answer:

Earthquake

1. A sudden movement (or) trembling of the earth's crust.
2. The movement of the tectonic plates, mass wasting, landslides, surface fault, etc., causes earth quake.

Tsunami

1. When an earthquake jolts the ocean floor, the sudden dislocation of the sea bed occurs and the resulting displacement of water can produce one or more huge, destructive waves.
2. These waves rise to several meters and may reach the coast within a few minutes.

Question 2.

Flood and cyclone.

Answer:

Flood :

1. Heavy rainfall, cyclone, melting of snow, Tsunami or a dam burst.
2. A large amount of water is burst out.
3. Displacement of people, Spread of contagious diseases such as Cholera and Malaria, etc.

Cyclone :

1. Heavy rainfall, cyclone, melting of snow, Tsunami or a dam burst.
2. When it reaches land and destroys buildings and kills people, it can be described as a disaster.
3. Disrupts transportation, power communication.

Question 3.

Hazard and disaster.

Answer:

Hazard:

1. A hazard is a dangerous phenomenon.
2. Human activity or condition that may cause loss of life.

3. Eg: Injury, health impacts, property damage, loss of livelihoods, services.

Disaster

1. Disaster occurs naturally.
2. A serious disruption in society.
3. Eg: economic, social, or environmental losses.

VII. Answer the following questions in detail:

Question 1.

Write about the disaster management cycle.

Answer:

The six disaster management phases that have been used in the concept of disaster cycle are as follows;

Pre-Disaster phase:

Prevention and Mitigation:

1. The term prevention is often used to embrace the wide diversity of measures to protect persons and property.
2. Mitigation embraces all measures taken to reduce both the effects of the hazard itself and the vulnerable conditions to it in order to reduce the scale of a future disaster.
3. Therefore, mitigation may incorporate addressing issues such as land ownership, tenancy rights, wealth distribution, implementation of earthquake-resistant building codes, etc.

Preparedness:

1. The process includes various measures that enable governments, communities and individuals to respond rapidly to disaster situations to cope with them effectively.
2. Preparedness includes for example, the formulation of viable emergency plans, the development of warning systems, the maintenance of inventories, public awareness and education and the training of personnel.

Early Warning:

1. This is the process of monitoring the situation in communities or areas known to be vulnerable to slow onset hazards, and passing the knowledge of the pending hazard to people harmless way.

2. To be effective, warnings must be related to mass education and training of the population who know what actions they must take when warned.

The Disaster Impact:

1. This refers to the “real-time event of a hazard occurrence and affecting elements at risk.
2. The duration of the event will depend on the type of threat; ground shaking may only occur in a matter of seconds during an earthquake while flooding may take place over a longer sustained period.

During Disaster Phase:

Response: This refers to the first stage of response to any calamity, which includes examples such as setting up control rooms, putting the contingency plan in action, issue warning, action for evacuation, taking people to safer areas, rendering medical aid to the needy, etc., simultaneously rendering relief to the homeless, food, drinking water, clothing, etc. to the needy, restoration of communication, disbursement of assistance in cash or kind.

The Post- Disaster Phase:

Recovery: Recovery is used to describe the activities that encompass the three overlapping phases of emergency relief, rehabilitation, and reconstruction.

Rehabilitation: Rehabilitation includes the provision of temporary public utilities and housing as interim measures to assist long-term recovery.

Reconstruction: Reconstruction attempts to return communities with improved pre-disaster functioning. It includes the replacement of buildings; infrastructure and lifeline facilities so that long-term development prospects are enhanced rather than reproducing the same conditions, which made an area or population vulnerable in the first place.

Development: In an evolving economy, the development process is an ongoing activity. Long-term prevention/disaster reduction measures. For example like the construction of embankments against flooding, irrigation facilities as drought-proofing measures, increasing plant cover to reduce the occurrences of landslides, etc.

Question 2.

Write about the flood, its effects, and the mitigation

Answer:

Flood: Sudden overflow of water in a large amount caused due to heavy rainfall, cyclone, melting of snow, Tsunami or a dam burst.

Effects:

1. Loss of life and property
2. Displacement of people and
3. Spread of contagious diseases such as cholera and Malaria etc.,

Mitigation for a flood:

They include flood walls/sea walls, flood gates, levees, and evacuation routes. Nonstructural measures reduce damage by removing people and property out of risk areas. They induce elevated structures, property buyouts, permanent relocation, zoning, subdivision and building codes.

Question 3.

Write about any five general survival techniques.

Answer:

General Survival Techniques:

1. During the earthquake be under the table, chair, kneel to the floor and protect yourself. Go near a sturdy wall, sit on the floor and hold the floor strongly and protect yourself. Use only torch lights,
2. During flood forecast, store up necessary things like first aid etc. Listen to the local Radio/TV for instructions. Cut off all the electrical supplies during flood and earthquake,
3. In case of fire accidents call fire service (No. 101)
4. If clothes are on fire, "Don't Run; Stop, Drop and Roll,"
5. Stay alert. Trains can come from either direction at any time,
6. Never sit on the edge of the Station Platform,
7. Cross the tracks safely.

Question 4.

Write about the earthquake, its effects, and mitigation steps.

Answer:

Earthquake:

A sudden movement (or) trembling of the earth's crust is called an earthquake. The movement of the tectonic plates, mass wasting, landslides, surface fault, etc., causes earthquakes.

Effects:

Due to a strong earthquake, loss of lives, buildings, roads, bridges, and dams are damaged. Earthquakes cause floods, tsunamis, landslides, fires, breakdown of water supply, and electrical lines. It may change the course of a

river too.

Mitigation steps:

1. Construct an Earthquake resistant building.
2. Seek shelter under stable tables.
3. Move to open areas.
4. Secure your belonging.
5. Put latches on cabinet doors and file cabinets.
6. Store hazardous materials in a sturdy place.
7. Keep fire extinguishers.

VIII. HOTS:

Question 1.

Why should we know about the natural disaster?

Answer:

- To prevent loss of life.
- To Protect our belongings.
- To create awareness among youngsters.
- To be prepared with emergency phone nos.
- To be stocked with food, water medicine.
- For children and old age people.

Question 2.

Name four places in India which undergo landslide.

Answer:

- Tamil Nadu, Kerala, and Maharashtra (Western ghats and Konkan hills)
- North Eastern Himalayas – (Darjeeling, and Sikkim)
- North West Himalayas – (Uttarakhand, Himachal Pradesh)
- Jammu and Kashmir.

I. Choose the Correct answer.

Question 1.

On 2nd to 3rd May high-velocity dust storms swept across the parts of North India and more than 125 people died and over 200 were injured.

- a) 2019
- b) 2018
- c) 2016
- d) 2017

Answer:

b) 2018

Question 2.

After tsunami, cyclone Gaja is the worst natural disaster to hit Tamilnadu.

- a) 2004
- b) 2005
- c) 2006
- d) 2007

Answer:

a) 2004

Question 3.

The word "Tsunami" is derived from the word.

- a) Italy
- b) Germany
- c) Korea
- d) Japanese

Answer:

d) Japanese

Question 4.

A low-pressure area that is encircled by high-pressure wind is called a

- a) Hurricane
- b) Cyclone
- c) Flood
- d) Tsunami

Answer:

b) Cyclone

Question 5.

In the early hours of November 10, 2018..... cyclone had been spread around 120(Kmph).

- a) Suthrina
- b) vartha
- c) Gaja
- d) Verdan

Answer:

c) Gaja

Question 6.

..... is used to describe the activities that encompass the three overlapping phases of emergency relief, rehabilitation, and reconstruction.

- a) Recovery
- b) Reconstruction
- c) Rehabilitation
- d) Development

Answer:

a) Recovery

Question 7.

..... attempts to return communities with improved predisaster functioning.

- a) Recovery
- b) Reconstruction
- c) Rehabilitation
- d) Development

Answer:

b) Reconstruction

Question 8.

State Disaster Management plan – The perspective plan –

..... prepared by the Revenue and Disaster Management Department.

- a) 2018-2030
- b) 2010-2030
- c) 2020-2030
- d) 2030-2040

Answer:

a) 2018 – 2030

Question 9.

During the earthquake be under the, kneel to the floor and protect yourself.

- a) table
- b) below the wall
- e) below the steps
- d) near the mirror

Answer:

a) table

Question 10.

In case of fire accidents dial for fire service.

a) 102

b) 103

c) 101

d) 100

Answer:

c) 101

II. Fill in the blanks:

1. Generally, a hazard is a

Answer:

dangerous phenomenon

2. A (or) trembling of the earth crust is called as earthquake.

Answer:

sudden movement

3. Due to a strong earthquake, loss of lives, buildings, roads, bridges, and dams are damaged are called

Answer:

Hazards

4. is a natural hazard. It develops at sea.

Answer:

Hurricane

5. means harbor waves.

Answer:

Tsunami

6. The term..... is a sudden rush of a crowd of people.

Answer:

stampede

7. is a disaster.

Answer:

Fire

8. refers to the “real-time event of a hazard occurrence and affecting elements at risk.

Answer:

Disaster Impact

9. embraces all measures taken to reduce both the effects of the hazard itself and the vulnerable conditions.

Answer:

Mitigation

10. If any occur dial, 101 for Fire service and 108 for the Ambulance.

Answer:

emergency medical help

III. Match the following:

A	B
1. Man-made disaster	a) NDMA
2. Industrial disaster	b) SDRF
3. CSIR	c) Warfare
4. National Disaster Management Authority	d) Bhopal gas leakage
5. Tamilnadu State Disaster Response Force	e) Laboratories

Answer:

A	B
1. Man-made disaster	c) Warfare
2. Industrial disaster	d) Bhopal gas leakage
3. CSIR	e) Laboratories
4. National Disaster Management Authority	a) NDMA
5. Tamilnadu State Disaster Response Force	b) SDRF

IV. Answer the following briefly:

Question 1.

Write down the examples of Natural disasters.

Answer:

Earthquakes, tsunamis, volcanic eruptions Landslides , Windstorms, Floods, and Epidemics.

Question 2.

What is the post-disaster phase in Disaster?

Answer:

- Response
- Recovery
- Rehabilitation

Question 3.

What is Preparedness?

Answer:

The process includes various measures that enable governments, communities, and individuals to respond rapidly to disaster situations to cope with them effectively.

V. Answer the following questions in detail:

Question 1.

Explain the general survival techniques while happening disasters.

Answer:

- During the earthquake be under the table.
- Hold the floor strongly.
- During flood forecast, store up necessary things like first aid.
- In case of fire accidents dial 101 for fire service.
- Road accidents can be avoided by following Road safety rules.
- Read the safety briefing card available in the seat pocket carefully.