

9. Disaster Management

Practice Questions

Question. 1) Write note on the following.

1) Earthquake

Ans: 1) Sudden vibrations on the earth and shaking of the earth's surface/ ground is called an earthquake.

2) The shocks and waves formed in the interior of the earth spread on the surface in all directions.

3) Shocks occurred due to an earthquake can be mild or intensified. Strong convulse or waves at first reach to the epicentre, therefore major loss occurs near to that area.

4) The mild earthquakes occur in a larger number. The earth is continuously vibrating.

5) The instrument which records the earthquakes is called 'Seismograph', and the accentuation is measured in 'Richter Scale'.

2) Methods of Fire Extinction

Ans: There are three methods to extinguish fire or to control the fire.

1) **Cool out** – If you spray water on the fire or around the fire it creates cooling effect and helps to control the fire.

2) **Suppress the fire** – To control the fire, sand or soil can be used. If the fire is spread due to oil then froth like substance is spread on the fire.

3) **Keep away flammable substances** – Any wooden article or flammable substances must be kept away from the fire. Stir up pump is the best device to put off small fires. It sprays water in all directions around the fire.

3) Causes of floods

Ans: 1) Increase of water supply in the source of rivers due to heavy rain or melting of snow. Ex. floods of river Ganga, Brahmaputra.

2) In coastal regions, the flood occurs due to sea waves which are formed by earthquake and the region becomes watery.

3) The amount of water in river bed increases due to breaking of dams and flood occurs.

4) Due to deforestation, soil erosion takes place in large amount. So mud flows and goes into river through small or big brook, drainage. Therefore riverbed gets shallow due to accumulation of mud. More water spreads around the surrounding area and flood occurs.

4) Preventive measures on flood

Ans: 1) **Tree plantation** – The floods occurring in India are mainly due to small river bed. The river beds gets shallow due to deforestation in nearby regions. Due to deforestation, soil erosion takes place in large amount and mud is accumulated in river bed. So it is necessary to stop destruction of trees and do forest plantation.

2) **Irrigation storage reservoir** – The speed of water can be decreased by constructing irrigation storage reservoir in main flow of river.

3) **Soil conservation** – The levelling of land is an important solution. Due to that rain water will be blocked in the field only and soil erosion will also stop and level of ground water collection will also increase.

5) Causes of drought

Ans: 1) **Destruction of the trees** – The areas on the earth where vegetation is low, the supply of vapour taking place through trees or plant in the atmosphere decreases. As a result, the amount of rainfall is reduced and drought conditions are created.

2) **Uncertain seasonal winds** – seasonal winds flow within a certain time period. In recent years, these winds have started to flow late. As a result, rainfall is also limited. This creates a crisis of drought.

3) **Destructive missile tests** – The advance nations in the world conduct nuclear weapons tests in the ocean and Polar Regions. This causes changes in the form of water in the aquifer. The evaporation capacity of the sea water decreases and the vapour amount in the atmosphere decreases.

6) Preventive measures on drought

Ans: 1) Doing proper management of water supply.

2) Using limited water storage in traditional way.

3) Doing reconstruction by doing survey of the use of land.

4) The campaign should not remain of government but it should be of common man.

5) Doing tree conservation by doing afforestation on wetlands.

Question. 2) Write the answers of the following questions.

1) Write the features of Earthquake resistant/ proof buildings.

Ans: 1) The constructions do not get damaged due to earth movement upto a certain limit.

2) Buildings are constructed as per I.S. 456.

3) Earthquake resistant constructions are performed as per IS 1893 and IS 13920.

4) Advanced technology is used for earthquake resistant construction.

5) To get prior intimation about earthquake, modern equipments like laser ranging very long baseline, Geiger counter, creep meter, strain meter, tide gauge, tilt meter, volumetric strain gauge etc. are used.

2) What is the landslide?

Ans: Natural cracks and fissures present in hard rocks cause their breaking. Especially, at the time of heavy rains, water entering these cracks causes weathering of these rocks. Weight increases, these rocks slide on the sloppy region and settle at the lower side. This is called collapse of rift.

3) In disaster management, what measures should be taken for the affected people?

Ans: 1) Take the affected people to right place means in a safe place. 2) First aid should be given to the person.

3) Take them to the place where oxygen is available for breathing. 4) Take them away from the crowd.

5) Treat the person until the doctor is there.

4) Why are the tsunami waves dangerous?

Ans: The tsunami waves occurs due to earthquake at the bottom of the sea. These waves are likely to cause significant damage to the coastal area. The ecosystem in sea comes in danger. Therefore, the tsunami waves are dangerous.

5) Write the names and work of institutes doing disaster prevention.

Ans: 1) National Centre of Seismology

Function – This centre performs research on earthquakes and various disasters.

2) Indian Mountaineering Institute

Function – The institute performs a systematic estimation of the potential impact of a landslide.

3) International centre for Integrated Mountain Development, Institute geology and world geological forum

Function – These international institutes help Indian institutes.

Question. 3) Write whether the following statements are true or false.

1) The rivers get flooded suddenly due to landslides.

Ans: True

2) The National Centre of Seismology works on research related/ reference to earthquake and various disaster.

Ans: True

3) After the earthquake use lantern or matchbox.

Ans: False (After the earthquake use torch or battery.)

4) The earth is continuously vibrating.

Ans: True

Question. 4) Explain the difference. (Write one point each)

1) Seismometer and Richter scale

Seismometer	Richter scale
1) The instrument which records the earthquake is called seismometer.	1) Richter scale is used to measure the accentuation (intensity).

Question. 5) Identify the different term.

1) Heavy rains, storms, formation of artificial water reservoirs, unlimited cutting of trees, building roads in mountains.

Ans: Formation of artificial water reservoirs (this is effect of landslide and others are causes of landslide.)

2) Do some physical movements, use candles, switch off the main electric supply, avoid using the lift.

Ans: Use candles (avoid doing this thing during earthquake. Do other things.)

Question. 6) Write the answers in one sentence.

1) What is epicentre?

Ans: The place where the layers of earth's crust strike each other is called epicentre.

2) The earth's crust is divided into how many parts?

Ans: The earth's crust is divided into total 12 parts.

3) At which temperature the metals like magnesium, aluminium, zinc does chemical reaction with water?

Ans: The metals like magnesium, aluminium, zinc does chemical reaction with water at high temperature.

4) What are the causes of landslides?

Ans: The natural disasters like earthquake, tsunami, heavy rains, storms, floods cause landslide.

5) When are the waves of tsunami formed?

Ans: The waves of tsunami are formed when the earthquake occurs at the bottom of the sea.

6) What is the central point of earthquake?

Ans: The point above the epicentre on the earth surface is called the central point of earthquake.

7) How many earthquakes occur on the earth every year?

Ans: Every year nearly 12,400 to 14,000 earthquakes occur on the earth.

8) Which is the best device to extinguish a recently caught fire?

Ans: The stir up pump is the best device to extinguish a recently caught fire.

9) What is disaster relief – planning prepared for?

Ans: The disaster relief – planning is prepared for quick/ immediate help when there is a disaster.

10) Which modern equipments are used to get prior intimation about earthquake?

Ans: To get prior intimation about, modern equipments like laser ranging very long baseline, Geiger counter, creep meter, strain meter, tide gauge, tilt meter, volumetric strain gauge etc. are used.

11) Which fire extinguisher is used to extinguish the fire caused by electrical components, fitting?

Ans: The fire extinguishers like carbon dioxide is used to extinguish the fire caused by electrical components, fitting.

12) Which type of fire is extinguished by froth fire extinguisher?

Ans: The fire caused due to flammable liquid substances like petrol, oil, varnish, solvents, cooking oil, paints, etc. is extinguished by froth fire extinguisher.

13) What is earthquake resistant/ proof buildings?

Ans: The constructions which do not get damaged due to earth movements upto a certain limit, are called earthquake resistant buildings.
