

Sub.: Science Answer Paper Marks: 20

Std.: VIIIth - S.B. 9. Disaster Management

Q.1(A): Choose the correct alternative

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1) Class C fire is caused due to -----

Ans : c)Gaseous substances

2) Every year nearly -----earthquakes occur on the earth

Ans: a)12,400 to 14,000

Q.1(B): Solve any one of the following question

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1) State whether the following statements are True or False:

Potassium, sodium and calcium are the metals that react with water at high room temperature.

Ans: False. (Potassium, sodium and calcium are the metals that react with water at normal room temperature.)

2) Rewrite the sentences after filling the blanks:

Earthquakes cause waves leading to movements of the earth's surface.

Ans: Earthquakes cause **seismic** waves leading to movements of the earth's surface.

3) Write name of some code of conduct made by Indian Standard Institue for contrution of buildings

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Ans : 1) IS 456

3)IS13920

Q.2(A): Give reason (Any One)

2

1) In monsoon, don't take shelter near hillside.

2) IS1893

- Ans: The excessive rainfall can cause landslides. The soil and rocks from the hillside can be pushed down along with the flow of rainwater. This debris slides to the lower heights from the hills. This explains us that taking shelter near the base of the hillside can be disastrous as one can be buried in the debris due to sudden landslide. Therefore, in monsoon, one should not take shelter near hillside.
 - 2) It is safer to find shelter under things like a bed, table at the time of earthquake.
- Ans: When earthquake takes place, due to the vibrations in the earth's surface, there is possibility of the roof and walls of the house to fall. This collapse can cause severe head injury which can be fatal. Thus, one must take shelter below the hard-supporting structures such as bed or table. This precaution can save one's life.

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1) What are the causes of an earthqauke?

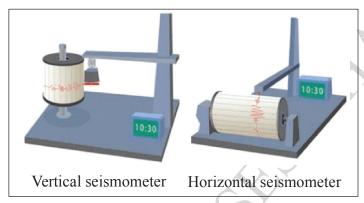
Ans: i)Volcanic eruption

- ii) Stress of big dams on the earth.
- iii)Mining
- iv)Underground atomic tests
- 2) Name any four types of natural disasters.

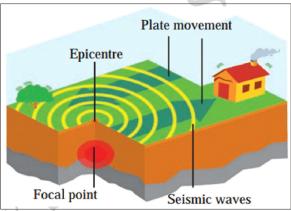
Ans: i)Earthquake ii)Flood c)Tsunami d)Forest fire

- 3) If a crowd gathers at the place of earthquake, what would be the difficulties in relief work?
- **Ans**: If people flock in crowd, the rescue work will not be possible. The ambulances and the fire engines will not reach the spot where the help is needed. The personnel from disaster management cells cannot thus act in time. It will be difficult to manage the situation and thus such crowding should never be done.
 - 4) Draw a well labelled diagrams: Seismometer/Secismograph. Focal point and epicenter or earthquake.

Ans:



Seismometer



Focal point and epicentre of earthquake

- Q.3 : Solve any two of the following question.
 - 1) Explain the relation between continuous rains and landslide.
- **Ans**: Before the actual landslide, many changes occur in the surrounding hilly ground. The hard rocks develop cracks and crevices. These are natural changes but due to man-made activities,

the cracks are widened due to erosion. These cracks make the big rocks to break into smaller stones. The cracks widen further due to excessive rainfall. These rocks further get eroded and they fall down along with soil from the slopes. The entire process is speeded up due to rainwater.

2) Write short notes: Types of fire

Ans: There are five types of fire. This division is based on two criteria, viz.

- a) Which substance is being burnt?
- b) What is the method of extinguishing it.
 - i) Class A Fire: Commonly inflammable solid things such as wood, clothes, coal, papers can be burnt by this type of fire. This fire is extinguished by spraying water over it. This is also called cooling out. Water is effectively used to put off class A fire.
 - ii) Class B Fire: Flammable liquid substances such as petrol, oil, varnish, solvents, cooking oil, paints, etc. catch fire and it is called class B fire. Since these substances are lighter than water, they can be extinguished only by foaming fire extinguishers.
 - iii) Class C Fire: The fire caused due to gaseous substances is called class C fire. Domestic gas (L.P.G.) and acetylene can cause such kind of fire.
 - iv) Class D Fire: Combustible metals catch class D fire. Metals such as potassium, sodium and calcium, can react with water at normal room temperature whereas magnesium, aluminium and zinc react with water at high temperature. When both these groups combine with water, it causes explosion.
 - v) Class E Fire: When electric components are subjected to fire, they form class C fire. Such fires can be caused by short circuit or due to problems in electric fittings. Such fire is extinguished with the help of carbon dioxide and non-conductive fire extinguishers.
- 3) What are the specifications of an earthquake-proof building?
- Ans: The earthquake-proof building is such that even if the earthquake is caused, it should not cause damage to the buildings due to these earth movements. There are some codes of conduct while constructing such buildings. Advanced technology is used for earthquake resistant construction. The foundation of earthquake-proof building is separated from lower land. The walls are of less weight or they are wooden. The house constructed with special light materials are preferred in earthquake-prone regions.
 - 4) Is there any relation between dam and earthquake? Explain.
- Ans: There is abundant water stored in the dams. This water column puts additional weight on the ground. Initially there may not be any weight, but later due to construction of dam, suddenly the pressure of this weight is so high that this ground experiences the tension. If such area is already earthquake-prone, then there can be chances of earthquake. According to theory of plate tectonics, there are continuous movements in the earth's surface. If over such fragile plates, the dams are constructed then the chances of earthquake are enhanced.
- Q.4 : Solve any One of the following question.
 - 1) Prepare a chart showing 'Do's' and 'don'ts' at the time of earthquake.

Ans: At the time of earthquake

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Dos	Don'ts
1. Go in the open grounds.	1. Don't wait in the multi-storeyed buildings. Do not use lifts. Use stairs to descend.
2. Keep the electrical appliances and cooking gas closed.	2. Do not stand near buildings, trees or electric wires and poles.
3. Use battery or torch.	3. Do not light candles, lantern or match- sticks.
4. Stand silently at one place. Do not panic or get scared.	4. Do not sit in uncomfortable posture for a long time.

2) What are the safety measures and precautions to stop the fire?

- **Ans**: i) Switching off the regulator of cooking gas cylinder when not in use. Put off the connections of all electrical appliances when not in use.
 - ii)If there is fire, call others immediately for help. Take help of others by calling them. Also help others who are in need to save their lives from fire.
 - iii)Get help from fire brigade by calling phone number 101.
 - iv)Know details about working of the fire extinguishing apparatus.
 - v)Give first aid to the victim of fire. Seek immediate medical help,

