Earthquake Interview Question and Answer

Question 1

Which Are The Two Kinds Of Earthquakes?

⇒ Volcanic and Tectonic.

Question 2

How Is The Earthquake Measured?

⇒ By using the Richter scale and Mercalli scale.

Question 3

What Is Richter Scale?

⇒ Richter scale is used to degree the whole strength released during the earthquake.

Question 4

What Is a Seismic Belt?

⇒ Some areas of the earth are prone to earthquakes. These areas are referred to as seismic belts.

Question 5

Who Devised Richter Scale?

⇒ C.F. Richter

Question 6

What Is Epicenter?

⇒ The vicinity of starting place of an earthquake is referred to as the epicenter.

Question 7

What Is Focus?

⇒ The factor at which an earthquake happens is referred to as Focus or Epicentre.

Question 8

Which Are The Three Types Of Earthquakes?

⇒ Shallow, Intermediate, and deep.

Question 9

When An Earthquake Strikes Tremors Spread Towards In?

⇒ Seismic waves

Question 10

Who First Detected The Seismic Waves?

⇒ R.D. Oldham.

Question 11

What Is An Earthquake? How Is It Formed?

⇒ An earthquake occurs while the structure of the earth changes and moves. One of the reasons is because of the motion of the molten rock down inside the earth's crust.

The rocks appear as gentle while they may be uncovered to the excellent warmth of the indoors of the earth, and the trade causes them to advance.

Because of this action below, we on the surface, feel that the ground is vibrating. It is referred to as an earthquake. The volcanic eruptions additionally reason for earthquakes.

Question 12

What Is Mercalli Scale?

⇒ Mercalli scale (designed in 1902) is used to assess the consequences of a quake at a particular location, as opposed to the degree of the overall energy.

Question 13

Which Is The Worst Earthquake Disaster Ever Recorded So Far?

⇒ In the Shensi, Shansi, and Honan provinces of China on February 2, 1556, which is anticipated to have killed extra than 830,000 human beings.

Question 14

What Is The Man-Made Causes Of Earthquakes?

⇒ Filling of very large dams, direct injection of fluids into the ground, and underground nuclear explosion.

Question 15

What Is An "earthquake"?

⇒ An earthquake occurs when rocks damage and slip along a fault inside the earth.

Energy is launched throughout an earthquake in numerous bureaucracy, consisting of motion along the fault, as heat, and as seismic waves that radiate out from the "source" in all directions and reason for the ground to shake, sometimes masses of kilometers away.

Question 16

What Causes Earthquakes?

⇒ Earthquakes are resulting from the sluggish deformation of the outer, brittle quantities of "tectonic plates", the earth's outermost layer of crust and upper mantle.

Due to the heating and cooling of the rock beneath those plates, the ensuing convection reasons the adjacently overlying plates to move, and, under great stress, deform.

The rates of plate actions range from about 2 to 12 centimeters in keeping with yr. Sometimes, high-quality electricity can build up within a single, or between neighboring plates. If the gathered stress exceeds the strength of the rocks making up these brittle zones, the rocks can spoil, freeing the stored power as an earthquake.

Question 17

How Do Earthquakes Cause Damage?

⇒ Most earthquake damage is because of floor shaking. The value or length (energy launch) of an earthquake, distance to the earthquake recognition or source, focal intensity, kind of faulting, and form of material is important factors in figuring out the quantity of ground shaking that is probably produced at a selected website online. Where there is an extensive history of earthquake interest, those parameters can often be estimated.

In preferred, huge earthquakes produce ground motions with massive amplitudes and long periods. Large earthquakes also produce strong shaking over a lot of large areas than do smaller earthquakes.

In addition, the amplitude of floor movement decreases with increasing distance from the focal point of an earthquake. The frequency content of the shaking also adjusts with distance.

Close to the epicenter, both excessive (fast) and low (slow)-frequency motions are gifts. Farther away, low-frequency motions are dominant, a herbal consequence of wave attenuation in rock.

The frequency of ground movement is a vital component in determining the severity of harm to systems and which systems are affected.

Question 18

Does The Earth Open Up During An Earthquake?

⇒ No this is a misconception is that of a hollow in the floor that extends all through an earthquake to swallow up hard-luck victims.

After a robust earthquake, some cracks can be visible on the ground or in basements.

These aren't faults, nor are they crevasse geared up to shut up once more. These cracks are probably because of soil settlement caused by ground shaking.

Question 19

Where Do Earthquakes Occur?

⇒ Earthquakes arise everywhere in the international; however, maximum arise on active faults that outline the principal tectonic plates of the earth.

90% of the world's earthquakes occur alongside these plate limitations (that constitute approximately 10% of the surface of the earth). The "Ring of Fire" circling the Pacific Ocean, including Canada's west coast, is one of the most active regions inside the globe.

Question 20

What Is The Relationship Between Volcanoes And Earthquakes?

⇒ The earthquake movement of several volcanoes is near observed to show warning signs of a coming near eruption. Large volcanic eruptions, particularly the explosive type, can discharge big amounts of electricity that may be documented by way of seismographs even a ways from the supply.

Recent volcanic hobby in Canada has been experienced in BC and the Yukon. Worldwide, most people of volcanoes and earthquakes are placed inside equal regions. This courting is defined thru a geological version known as plate tectonics.

You can locate additional reasons for plate tectonics:

USGS - Plate tectonics

University of Nevada - plate tectonics

U.C. Berkeley

In Eastern and Northern Canada, earthquakes aren't associated with volcanic procedures. Although volcanic rocks exist in lots of regions (every now and then as antique as 2 billion years of age) and magmatic bodies can be located (the Monteregian Hills of Quebec are 60 million 12 months old intrusive), those magmatic movements are just too vintage to have any dating with recent earthquake happenings.

No volcanic or magmatic interest is currently underway in these components of Canada.

Question 21

Will More Shocks Be Felt After A Strong Earthquake?

⇒ For multiple hours, or maybe days, after a deeply felt earthquake, it is rather possible that human beings may sense greater shocks.

This chance mostly exists, however, maintains in thoughts those four facts:

In maximum examples, those shocks (known as **aftershocks**) may be less; therefore, the vibrations might be weaker.

Aftershocks no longer mean that a more potent earthquake is coming.

Aftershocks are common; they display that the earth's crust is readjusting after the principal earthquake.

The quantity of felt aftershocks is quite variable and therefore can't be anticipated. There are probably several in line with the day, or the handiest several in step with the week.

It is not possible to are expecting either the number or the importance of aftershocks that could occur. These vary substantially from one area to another, according to many elements which can be poorly understood.

Question 22

Can Earthquakes Be Predicted?

⇒ With the current state of clinical expertise, it is not possible to forecast earthquakes and clearly no longer possible to determine in advance their actual date, time, and area, despite the fact that scientists have performed studies on a wide style of tried prediction methods.

However, the presence of earthquakes particularly in areas, expressed in phrases of possibilities, may be usefully predicted. Canada, along with other nations, is operating to reduce harm and accidents through the implementation of contemporary earthquake-resistant standards so people could be contained whenever and anywhere an earthquake occurs.

Question 23

Does The Rate Of Earthquakes Increase During The Cold Weather?

⇒ Although cold temperatures considerably contain an effect on the floor close to the floor, it has no impact at additional depths. Near the surface, freeze and thaw cycles can weaken and ruin rock because of high water stress.

However, that is a phenomenon restrained to near-floor soil.

Consider a mine: the temperature inside the mine could be stimulated by means of floor temperature easiest for roughly the primary 50 m. Deeper in the mine the temperature could be boosted through the inner warmness of the earth - a temperature this is pretty even during the 12 months.

The hypocenter (the vicinity where displacement occurs along a rock fracture) of an earthquake is generally arranged several km under the surface (normally, between five-30 km in Eastern Canada), in which the surface temperature might don't have any influence.

For example, the hypocenter of the 1988 Saguenay earthquake occurred at an intensity of 28 km in which the temperature is approximately steady at **300°C** 12 months around.

Furthermore, the precept reasons of earthquakes (movement of tectonic plates, volcanoes, and so forth.) are large-scale phenomena, unrelated to floor temperature.

However, close to lakes and rivers, while the ambient temperature drops below -20°C many little microseisms can be heard and are on occasion felt.

These microseisms aren't earthquakes as they are because of cracking ice and the moves of ice block one in resistance to any other.

They are cryoseisms, also known as **frost quakes**, and can most straightforwardly be felt near the frame of water from which they originate. Such ice cracks can sometimes be noticed by a seismograph if it is discovered close to the body of water.

Seismic indication of a normal frost quake documented at the vertical issue of the seismic station in Sadowa, Ontario, close to Georgian Bay (SADO), January 18, 2000, at 6:55 pm, a totally cold night time (12 frost quakes had been recorded within 2 hours that night time).

A seismologist at once recognizes the nature of such an occasion through the single frequency contained in the document.

Question 24

What Is The Intensity Of An Earthquake?

⇒ A number that indicates the severity of ground vibrating in that area by evaluating the effects of the vibration on people, artificial structures, and on the landscape.

Question 25

Can People Cause Earthquakes?

⇒ There is a possibility to cause an earthquake by people. Minor earthquakes have been prompted via human activities inclusive of mining (rock bursts and cavity collapse), the filling of reservoirs at the back of massive dams, and the injection of fluids into wells for oil recovery or waste disposal.

Large dams keep again huge portions of water. Some of this water may additionally penetrate into cracks within the underlying rock, and once in a while, this could cause small earthquakes below or very close to the reservoir.

Following an underground nuclear explosion, small earthquakes have frequently been recorded near the test web page. These are due to the fall apart of the hollow space created by way of the explosion.

Man-made earthquakes usually occur close to the website of the pastime. There is not any hyperlink between human activities like those and earthquakes going on loads or lots of kilometers away.

Question 26

Does A Small Earthquake Mean That A Larger Earthquake Is Coming?

⇒ No, besides very unique exceptions. Every year, hundreds of earthquakes happen in Canada. Only an entirely tiny minority of those forego a larger earthquake.

Although a huge earthquake may be foregone by a foreshock (the Saguenay earthquake of November 1988 is an instance), the incidence of a small earthquake isn't in itself a standard call. Hundreds of small earthquakes happen each year in Canada, while main earthquakes have occurred only in some instances in this century.

A small earthquake, however, gives an excellent opportunity to provide reminders about safety measures to take earlier than, for the duration of and after an earthquake.

Question 27

What Is The Difference Between The "importance" And The "depth" Of An Earthquake?

⇒ The Intensity scale is developed to clarify the effects of an earthquake, in a given area, on natural capabilities, commercial installations, and humans.

The intensity ranges from the value that is associated with the strength terminated by utilizing an earthquake.

Question 28

Certain Earthquakes Have A Negative Magnitude, Is This An Error?

⇒ No, it isn't an error. As significance calculations are primarily based on a logarithmic scale, a ten-fold drop in amplitude decreases the importance by 1. Let us anticipate that on a seismogram:

An amplitude of 20 millimeters corresponds to an importance 2 earthquake.

10 instances much less (2 millimeters) corresponds to a value of one;

100 instances much less (0.2 millimeters) corresponds to significance zero;

1000 instances much less (0.02 millimeters) corresponds to significance -1.

Naturally, a terrible significance is observed handiest for extremely small events, which aren't felt through people.

Question 29

Is There A Maximum Magnitude For An Earthquake?

⇒ Though theoretically there's no mathematical limitation with the extent of calculation, bodily there is a boundary. The value is associated with the floor vicinity of the blocks of rock which rub collectively and in accomplishing so give upward thrust to seismic waves.

Since the tectonic plates have limited dimensions, the value has to therefore additionally get a maximum. It is believed that the finest earthquakes can reach a value of 9.5, which corresponds to the significance of the Chilean earthquake.

Question 30

At What Magnitude Do Earthquakes Begin To Be Felt? When Does Damage Start To Be Observed?

⇒ This is challenging to answer honestly. There is not one magnitude beyond which damage will happen.

It relies on other variables, such as the distance from the earthquake, what kind of soil is available, building construction, etc.

That being said, deterioration does not mostly takes place until the earthquake magnitude arrives somewhere above 4 or 5.

Question 31

Do Several Magnitude Scales Exist?

⇒ Though seismologists commonly consult with importance at the Richter scale, considerable importance scales do exist.

Question 32

How Often Do Earthquakes Occur?

⇒ Global Frequency of Earthquakes.

Question 33

Where Can I Find Information On The World's Earthquakes?

⇒ In complement to the global networks that can locate earthquakes of value 5.0 and extra, the majority of the nations keep their very own countrywide community.

Question 34

Are Earthquakes Really On The Increase?

⇒ No, earthquakes occur at more or less the same rate every year.

Question 35

Which types of boundaries tend to cause large earthquakes?

⇒ Roughly 80% of earthquakes happen where plates are forced together, called **convergent boundaries**.