

## **TEST No. 4**

### **TOPIC: EARTHQUAKE**

### **SUBJECT: PHYSICAL GEOGRAPHY**

#### **Explanation:**

Question 1

Answer C

Explanation: Both statements are true

Question 2

Answer 1

Explanation: Each whole number on this scale represents 10-fold increase in the measured wave amplitude. Translated into energy, each whole number demonstrates a 31.5 times increase in amount of energy released.

Question 3

Answer b

Explanation: statement one is wrong. The intensity or destructive power of an earthquake is an evaluation of the severity of ground motion at a given location. It is measured in relation to the effects of the earthquake on human life.

statement three is wrong. Modified Mercalli (MM) scale values from I to XII.

Question 4

Answer a

Explanation: statement two is wrong. The denser the material, the higher is the velocity.

Question 5

Answer a

Explanation: statement three is wrong. Surface Waves or Long Waves (L-Waves): Travels on earth's surface and causes maximum destructions

Question 6

Answer a

Explanation: s waves cannot pass through liquid. So question of direction does not arise.

Question 7

Answer d

Explanation: P-waves vibrate parallel to the direction of the wave. This exerts pressure on the material in the direction of the propagation. As a result, it creates density differences in the material leading to stretching and squeezing of the material. Other three waves vibrate perpendicular to the direction of propagation. The direction of vibrations of S-waves is perpendicular to the wave direction in the vertical plane.

Question 8

Answer a

Explanation The shadow zone of S-wave is much larger than that of the P-waves. The shadow zone of P-waves appears as a band around the earth between  $105^\circ$  and  $145^\circ$  away from the epicentre. The shadow zone of S-waves is not only larger in extent but it is also a little over 40 per cent of the earth surface.

Question 9

Answer b

Explanation: The point of origin of an earthquake is called the focus

Question 10

Answer d

Explanation: high intensity earthquake occurs usually along the convergent plate boundaries. Rings of fire around the Pacific Ocean is situated on convergent plate boundaries