

Q: What do you know about Earthquakes?  
Explain the characteristics of seismic waves.

## EARTHQUAKE

It is a sudden release of energy in the form of high seismic waves that create vibrations in the earth just as a result of abrupt movement of tectonic plates.

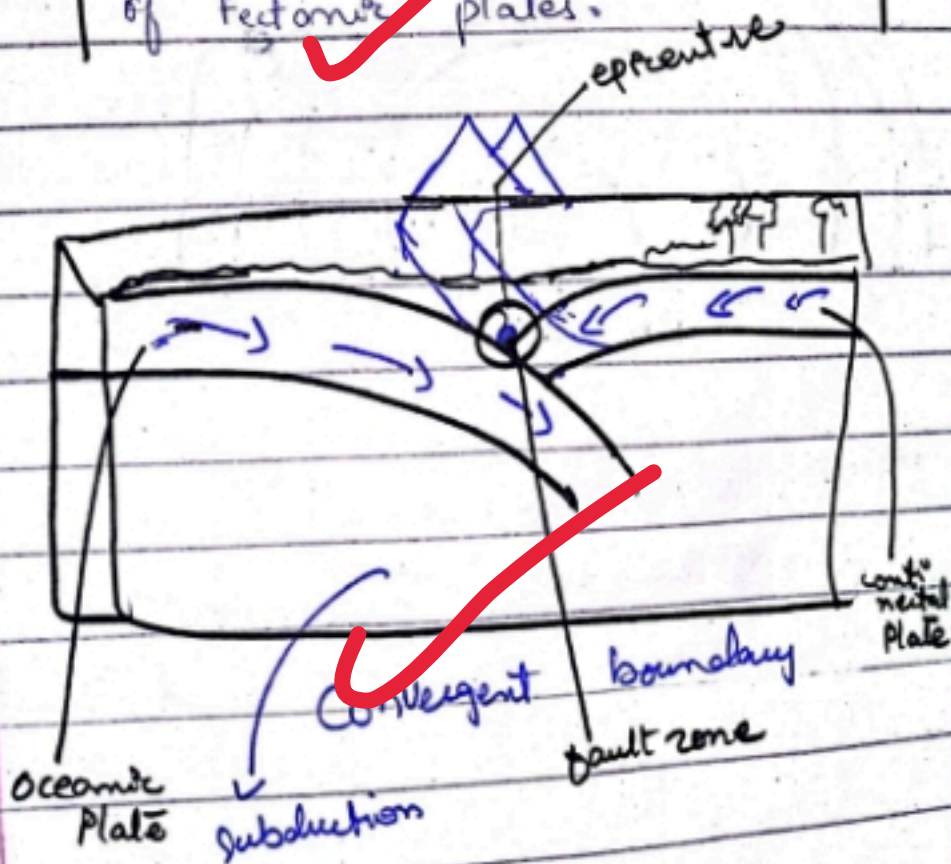


Fig: 1

**Fig 1:** when the oceanic plate subduct with continental plate it release the energy that can feel on earth crust. The dense plate drags another plate, this process is called "subduction". In this figure the oceanic-continental convergence is shown - the "epicentre" is straight point on fault zone.

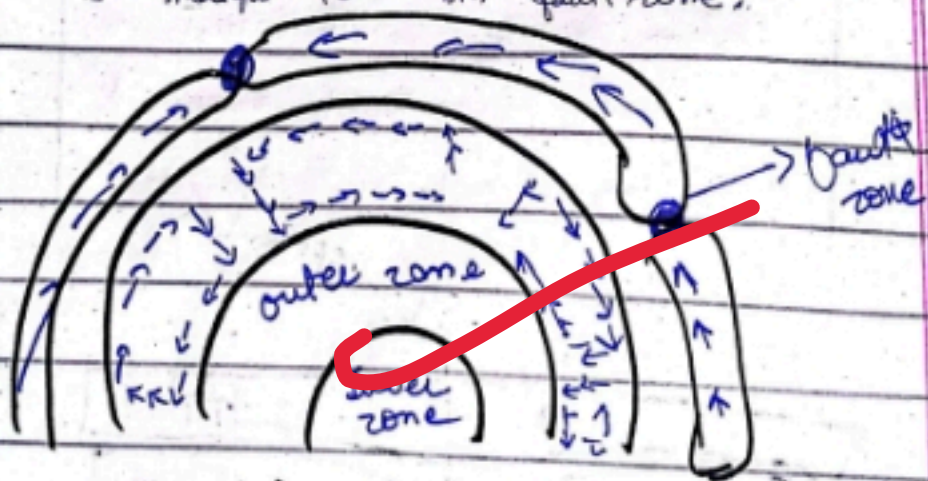
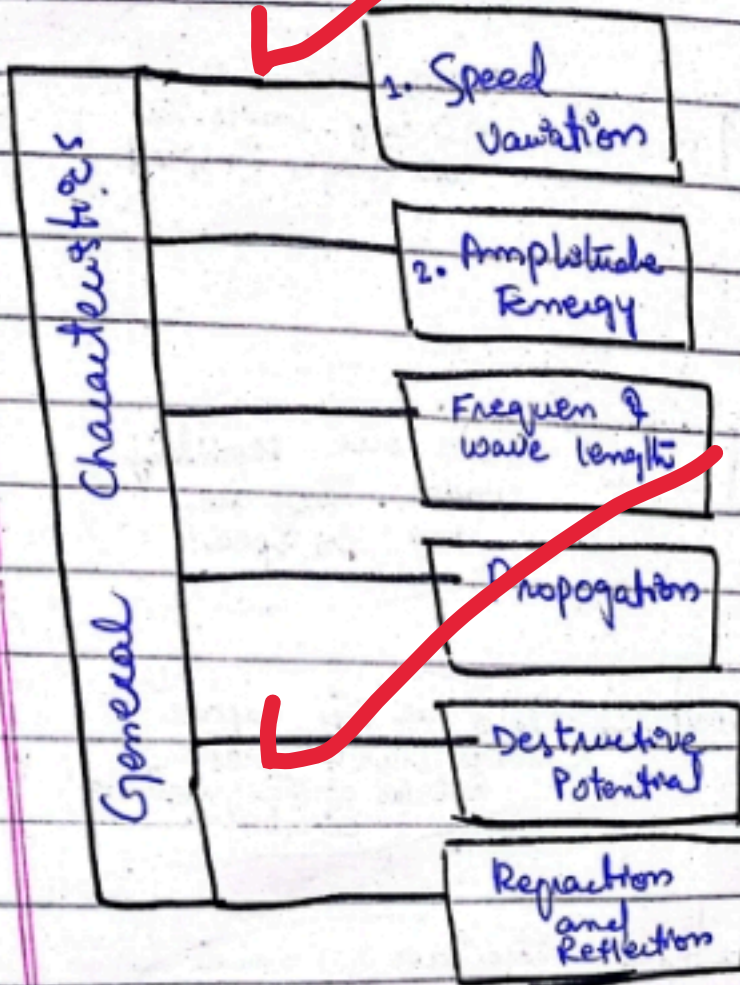


Fig 2:

**Fig 2:** Due to these fault zones, minor earthquakes erupt after regular interval. The very point in which tectonic plates of subduct is called "Fault zone" and the centre from which energy releases is called "focus".

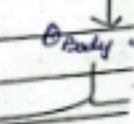
# Characteristics of Seismic Waves

Seismic waves are vibrations that travel through the Earth's crust and are generated by earthquakes, volcanic activity, explosions, or other sources.



These characteristics of seismic waves can be categorized based on its types.

Seismic



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Seismic waves

Body waves

Surface waves

P-waves

S-waves

Rayleigh waves

Love waves

P-waves

These are the primary waves. They are high in speed.

S-waves

These are secondary waves. They are low in speed.

Rayleigh waves

These are the surface waves which moves the particles of the medium circularly.

Love waves

These are the waves which moves the particles of the medium linearly.

Good attempt!!!