Chapter 1

Q1. What do you mean by elastic rebound theory?

Q2. Write step by step procedure for determination of the location of epicenter.

Q3. Describe the theory of continental drift and plate tectonics.

Q4. Estimate the moment magnitude of an event with rupture length of 150km, rupture width of 62km and slip of average fault slip of 4m. Take modulus of rigidity, \( \mu \) as \( 3.7 \times 10^{10} \text{ N/m}^2 \).

Q5. At a recording station a difference in time of arrival between P waves and S waves was observed to be 1.9 seconds. What is the approximate distance from the station at which the event occurred? Assume P wave velocity as 4.2km/sec and S wave velocity as 1.85 km/sec.