Unit 25

Answers: Recent Trends in Physics

Quick checks

1 **a**

2 **c**

3 **d**

4 **b**

5 **b**

6 **c**

7 **b**

8 **b**

9 **c**

10 **b**

11 **a**

12 **c**

11. **Seismology**

Seismic waves

Body waves

- **P waves**
- **S waves**

Surface waves

- **Rayleigh waves**
- **Love waves**

12. **Key parameters:**

Effects:

Why so destructive: **shallow**

150 km

13. **body waves**

surface waves

	P wave	S wave	Rayleigh wave	Love wave
Motion	longitudinal: along the direction of travel	transverse: at right angles to the direction of travel	rolling ellipses, up and down and back and forth	side to side, horizontal, at right angles to travel
Speed	fastest, 6–8 km/s	3–4.5 km/s	slowest	a little faster than Rayleigh
Medium	solids, liquids, gases	solids only	along the surface of solids	along the surface of solids
Destructiveness	least	more than P waves	most of the ground's heaving	strong sideways shaking

14. **Concept:** **Higgs field**

Importance:

Discovery:

15. Nanotechnology

10^{-9}

History:

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Fields