

**Example questions for the ERSC 1F90 Winter Term Midterm Test.**

Note that the test covers the following material:

Geomagnetism (from slide 25)  
Plate Tectonics  
Earthquakes (up to slide 115)

Several of these example questions will appear on the test. The test will be made up of 35 questions, all of which can be answered on a SCANTRON sheet.

**In each case select the answer that is the MOST correct.**

1. The San Andreas fault experiences an average annual movement of:

- a) 1.5 metres per year.
- b) 1.9 cm per year.
- c) 2.3 km per year.
- d) 25 cm per year.
- e) None of the above are even close.

2. How old is the oldest oceanic crust?

- a) 4 billions years old.
- b) 180 million years old.
- c) 40 million years old.
- d) 1 billion years old.
- e) None of these are even close.

3. The Lithosphere is:

- a) Attached to the crust.
- b) A part of the Upper Mantle.
- c) Made up of rigid rock.
- d) Has a chemical composition that differs from the crust.
- e) All of the above.

4. Continental crust can be as thick as:

- a) 1 km.
- b) 10 km.
- c) 75 km.
- d) 250 km.
- e) None of the above is even close.

5. Oceanic crust has a composition that is similar to:

- a) Basalt.
- b) Granite.
- c) Gneiss.
- d) Sandstone.
- e) None of the above.

6. The focus of an earthquake is:

- a) The point where there is maximum destruction of buildings.
- b) The point, in the crust, that is the center of energy release during an earthquake.
- c) The point where seismic waves stop suddenly.
- d) The point on the land surface above the actual location of relative movement between rock bodies.
- e) None of the above.

7. The epicentre of an earthquake is:

- a) The center of energy release.
- b) Almost the center of an earthquake, offset by a few degrees.
- c) The location on the ground surface that experiences the greatest effect from an earthquake.
- d) The name of the central park in San Francisco.
- e) None of the above.

8. Which of the following is true about Secondary Seismic waves:

- a) The fastest seismic waves.
- b) Travel through liquids and solids.
- c) Only affect the ground surface.
- d) Travel only through liquids.
- e) None of the above are true.

9. Which of the following is true of Primary seismic waves:

- a) They are the fastest seismic waves.
- b) They are the second fastest waves.
- c) They involve compression and relaxation of rocks through which they pass.
- d) They travel through solids and liquids.
- e) a), c) and d).

10. The axis of the oceanic ridge is displaced by:

- a) Buoyant rocks form the mantle.
- b) Volcanic mountains.
- c) Transform faults.
- d) Sea-floor stripes.
- e) None of the above.

11. The fastest rates of sea-floor spreading are associated with:

- a) The North American Plate.
- b) The African Plate.
- c) The Arabian Plate.
- d) The Nazca Plate.
- e) The Somolia Plate.

12. Damage due to earthquakes is increased by which of the following:

- a) Bedrock made up of igneous and metamorphic rock types.
- b) Soft, unconsolidated sediment.
- c) In areas of steep, mountainous slopes.
- d) All of the above.
- e) b) and c)

13. In the list, below, which region would be most likely to experience a major earthquake?

- a) Southern Ontario.
- b) The Saskatchewan River
- c) Northern Manitoba.
- d) Central Alberta.
- e) The St. Lawrence River

14. In the list below, which region would be least likely to experience a major earthquake?

- a) Southwestern British Columbia.
- b) Northern Manitoba.
- c) The Rocky Mountain Foothills.
- d) Eastern Canada.
- e) All of the above are prone to major earthquakes.

Answers:

1b, 2b, 3e, 4c, 5a, 6b, 7c, 8e, 9e, 10c, 11d, 12e, 13e, 14b