

**YEAR: 9**

**SUBJECT: SCIENCE**

**TEST: Plate Tectonics**

**TIME: 45 mins**

**QUESTIONS: Part A: Multiple Choice Questions (10 marks)**

**Part B: Short Answer Questions (24 marks)**

**TOTAL MARKS: 34 marks**

**DO NOT WRITE ON OR MARK THIS PAPER**

**SECTION ONE: Multiple Choice Questions (1 mark each)**

**Answer this section on the separate multiple – choice answer sheet**

1. Which observation led to the hypothesis of seafloor spreading?
2. The claim of a large land mass referred to as Pangaea.
3. That there is a Global Rift system and undersea mountains.
4. Scientists in 1872 discovering a mountain ridge in the Atlantic Ocean.
5. The earth has several layers with different physical properties.
6. Which of the following is **NOT** a type of plate boundary?
7. Converging
8. Continental
9. Diverging
10. Transform

3. List the order of colouring in magma as it begins to cool.

1. Orange -> red -> yellow -> black -> white.
2. Red -> white -> orange -> yellow -> black.
3. Black -> white -> orange -> red -> yellow.
4. White -> yellow -> orange -> red -> black.
5. 4. In the reconstruction of Pangaea, which continents bordered India?
6. Africa, Antarctica and Australia.
7. Africa and South America only.
8. Africa and Antarctica only.
9. Africa, Australia and South America.

5. Name the two types of crust that form tectonic plates.

1. Transverse and continental.
2. Oceanic and diverging.

c. Continental and converging.

d. Oceanic and continental.

1. 6. Name the tectonic process that generates heat at the boundaries of the plate.
3. Seismic waves.
4. Subduction.
5. Circumduction.
6. Eruption.

7. Which of the following is **NOT** evidence supporting the hypothesis of seafloor spreading?

1. The magnetic polarity of rocks alternated periodically along seafloor ridges.
2. Sedimentary rock layers become thicker as you move away from the edges.
3. Rocks on one side of a rift have the same magnetic direction as those on the other side.
4. The further the rocks are from the ridges, the older they are.

8. Which of the following is an example of transform boundary?

1. East Africa ridge valley.
2. Mid-Atlantic Ocean ridge.
3. South Island of New Zealand.
4. Sundra trench between Australia and Indonesia.

9. Which scale is used to measure the magnitude of earthquakes?

1. Flux capacitor.
2. Amplifier.
3. Richter.
4. Multiplier.

10. What is pyroclastic flow?

1. The upward expulsion of lava during a volcanic eruption.
2. The varying constituents between tectonic plates.
3. A cloud of ash, rock and gas at about 500 degrees celsius.
4. Molten lava at 1500 degrees celsius.



**SEMESTER ONE 2016**

**Plate Tectonics Test:**

**ANSWER BOOKLET**

**NAME:**

**FORM:** **DATE:**

Multiple Choice Short Answer Total

**/34**

**/24**

**/10**

**SECTION ONE:** Multiple choice answers

Cross (X) through the correct answer.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 1 | a | **X** | c | d |
| 2 | a | **X** | c | d |
| 3 | a | b | c | **X** |
| 4 | **X** | b | c | d |
| 5 | a | b | c | **X** |
| 6 | a | **X** | c | d |
| 7 | **X** | b | c | d |
| 8 | a | b | **X** | d |
| 9 | a | b | **X** | d |
| 10 | a | b | **X** | d |

**SECTION TWO: Short Answer (25 marks)**

Answer the questions in the spaces provided.

**Question 11**

Define the following terms: (5 marks)

Ocean trench:

**A DEEP TRENCH IN THE OCEAN FLOOR THAT IS MUCH DEEPER THAN THE REST OF THE OCEAN.**

Magnetic striping:

**PATTERNS OF MAGNESIUM TRAPPED IN ROCKS ON EACH SIDE OF PLATE BOUNDARIES.**

Subduction:

**WHERE THE CRUST IS SINKING DOWN INTO THE EARTH.**

Earthquake:

**THE RAPID MOVEMENT OF THE GROUND, USUALLY BACK AND FORTH AND UP AND DOWN IN A WAVE OF MOTION DUE TO THE MOVEMENT OF TECTONIC PLATES.**

Primary Wave (P-wave):

**A LONGITUDIONAL SEISMIC WAVE THAT TRAVELS FAST THROUGH THE EARTH.**

**Question 12**

List the **THREE** layers that make up the earths structure: (3 marks)

* **Lithosphere**
* **Mantle - 1 MARK EACH**
* **Core**

**Question 13**

List **TEN** major tectonic plates: (5 marks)

**EACH WORTH 0.5 MARKS EACH – INCLUDES ALL PLATES (MAJOR, MINOR ETC). EXAMPLES:**

* **Antarctic plate**
* **Eurasian plate**
* **Pacific plate**
* **North American plate**
* **African plate**
* **Indo-Australian plate**
* **South American plate**
* **Philippine Sea plate**
* **Arabian plate**
* **Somali plate**
* **Caribbean plate etc.**

**Question 14**

List the names of the scientists who proposed the following theories: (2 marks)

Pangaea: **Alfred Wegener (1 mark for whole name)**

Seafloor spreading: **Harry Hess (1 mark for whole name)**

**Question 15** (9 marks)

There are **THREE** types of tectonic plate movement. State each type of plate movement, provide an example of a country/continent/land mass where it occurs and the resulting landscape changes as a result of the plate movement.

**1 mark for type of plate movement, 1 mark for an example where it occurs, 1 mark for resulting landscape. Examples include:**

* **Divergent boundaries: East Africa Rift Valley – creates rifts, ridges or volcanoes.**
* **Convergent boundaries: Nazca Plate colliding with the South American Plate – creates trenches and mountains.**
* **Transform: San Andreas Fault in California, North America – creates mountains and earthquakes.**

**END OF TEST**

Please go back and check your work / complete any unanswered questions.