**Year 11 Earth and Environmental Science**

**TASK 6- Test**

# **End of Semester Topic test**

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| --- | --- | --- |
| **Name:**  **Date:** | **Teacher:** | **Score:**  **/ 26** |

1. Which of the following has the is the least hardness according to Moh’s scale?  
 a) Diamond  
 b) Quartz  
 c) Talc  
 d) Fluorite

2. Which plate boundary movement is expected when a continental and an oceanic plate converge?

a) Oceanic plate subducts under the continental plate boundary

b) Continental plate subducts under the oceanic plate

c) Both push against each other forming mountains

d) Both converge to form a trench

3. Which is a geological feature created by a divergent boundary

a) Deep ocean Trench

b) Volcano

c) Mid ocean ridge

d) Subduction zone

4. On which tectonic plate boundary does New Zealand sit?

a) Australia plate/ Scotia plate

b) Australia plate/ New Zealand plate

c) New Zealand plate/ Pacific plate

d) Australia plate/ Pacific plate

5. What type of fault is the Darling fault and what type of movement occurred

a) Normal fault- Darling scarp moved down

b) Reverse fault- Darling Scarp moved up

c) Normal fault- Darling Scarp moved up

d) Reverse fault- Darling Scarp moved down

6. The San Andreas fault is an example of which type of boundary?

a) Convergent

b) Divergent

c) Consistent

d) Transform

7. Which type of seismic waves are known as **body waves**

a) L and R

b) S and P

c) S and R

d) L and S

8. Which of the following is an example of an igneous rock?

a) Obsidian

b) Marble

c) Gneiss

d) Limestone

9. Which of the following is an example of a metamorphic rock?

a) Gabbro

b) Siltstone

c) Granite

d) Marble

10. Which of the following is not an agent of erosion?

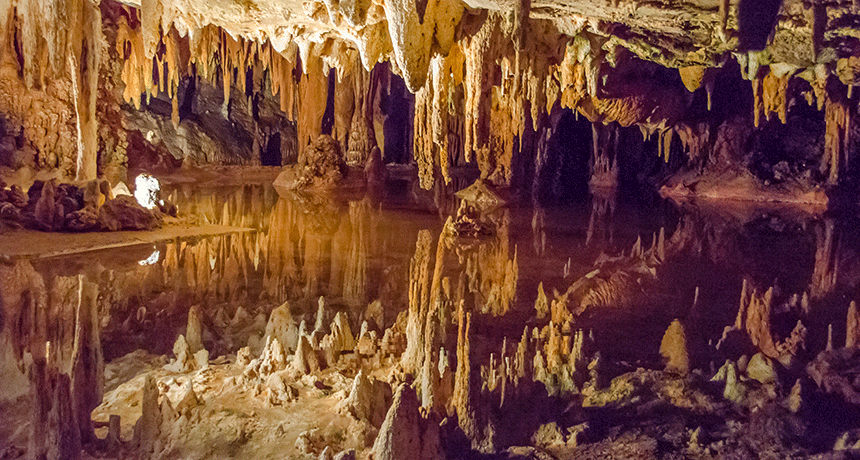
a) Temperature

b) Wind

c) Water

d) Ice

11.In the image below what type of weathering has occurred?



a) Oxidation

b) Solution and carbonation

c) Frost wedging

d) Biological weathering

12. Which of the following in **NOT** an example of biological weathering?

a) Plants growing through rock cracks

b) Humans mining

c) Animals burrowing within a rock

d) Rocks breaking apart due to temperature change

13. Which method of soil conservation describes leaving 30% of crop on the surface during peak soil erosion periods?

a) Conservation tillage

b) Cover crops

c) Alley cropping

d) Strip cropping

14. Which is the correct definition for **porosity?**

a) Ability of soils to transmit water

b) How easily water flows through the soil profile

c) Size of the gaps between soil particles

d) how easily soils are eroded

15. Which of the following soils would have the smallest porosity?

a) Silt

b) Clay

c) Clay loam

d) Sand

**SHORT ANSWER SECTION**

16. Below is an image of a soil conservation method. Please name the method and describe why this is used to preserve soils. **(3 marks)** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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17. Give an example of each type of weathering **(3 marks)**

|  |  |  |
| --- | --- | --- |
| **Physical** | **Chemical** | **Physical- Biological Weathering** |
|  |  |  |

18. Explain why Australia is relatively geologically stable **(2 marks)**

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19. Describe the formation of intrusive igneous rocks referring to crystal size and time for cooling **(4 marks)**

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**Diagram, shape, polygon

Description automatically generated**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

20. Label the following soils in the soil texture triangle below **(5 marks)**

**A** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**B** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**C** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**D** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**E** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

21. Complete the following table in relation to the development of knowledge around plate tectonics **(6 marks)**

|  |  |  |
| --- | --- | --- |
| Theory | Scientist | Evidences |
| Continental Drift Theory | Alfred Wegener | 1.  2.  3.  4. |
| Sea Floor Spreading | Harry Hammond Hess | 1.  2. |

22. List the landforms created along a convergent boundary between a continental and an oceanic boundary **(4 marks)**

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23. Which is older, mid ocean ridges or abyssal plains? Explain why. **(3 marks)**

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24. Complete the following table **(6 marks)**

|  |  |  |  |
| --- | --- | --- | --- |
| **Image** | **Rock properties** | **Type of rock** | **Reasons for** |
| Granite: Igneous Rock - Pictures, Definition & More | - Large crystals inside a fine grained mass  - Crystals made up of quartz, feldspar and mica |  |  |
| Geology - rocks and minerals | - Rock has layers  - Hard  - Shiny in coloured bands |  |  |
| Geology - rocks and minerals | - Light in colour  - Contains deformed fossils  - Clasts of minerals |  |  |

25. Students were investigating the water holding capacity of different soil types. They collected the data in the table below. As they boiled the water they measured the weight of the soil at 2 minutes intervals

|  |  |  |  |
| --- | --- | --- | --- |
| Time | Soil A (g) | Soil B (g) | Soil C (g) |
| 0 | 80.3 | 79.2 | 80.5 |
| 2 | 65.2 | 78.7 | 70.1 |
| 4 | 50.2 | 76.2 | 62.1 |
| 6 | 45.2 | 74.5 | 53.1 |
| 8 | 41.2 | 70 | 48.1 |
| 10 | 38.2 | 64.2 | 47.2 |
| 12 | 37.1 | 58.2 | 45.9 |
| 14 | 36.8 | 51.2 | 45.1 |
| 16 | 36.2 | 42.1 | 44.7 |
| 18 | 36.1 | 36.2 | 44.3 |
| 20 | 36 | 35.2 | 44.2 |

a) Graph the following data on the grid attached **(5 marks)**

b) List the amount of water lost for each soil type **(3 marks)**

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c) Based on the graph can you label which soil type is which **(3 marks)**

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