Mid term Assignment/Quiz

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QUESTION 1

- **Part A:** Rock is broken down by frost, rain and sun at **A**. What name is given to this process?

Ans:

Weathering:

weathering is the process of breaking down of surface rocks into smaller rocks/pieces.

- **Part B:** How is sediment grains in a river changed during transport from **A** to **B**? State **two** differences in the likely appearance of the grains.

Ans:

During the transportation process,grains may be reduced in size due to abrasion. Random abrasion result in the eventual rounding off of the sharp corner and edges of the grain

Two differences in likely appearance of grains

- Heavy and lighter.
- Angular and rounded.

- **Part C:**How do loose sediments at **C** become changed into solid rock?

Ans:

At a point **C** deposition take place *deposition is the process where sediment are released | dropped by their agent of erosion*

After deposition, compaction and lithification of sediment occur and solid rock formed.

❖ **Part D** Rocks that are deeply buried in the Earth's crust may undergo metamorphism.

Describe **two** changes that happen in rocks during metamorphism & explain point **D**?

Ans:

The rock and fragment that are deeply buried in the earth crust may undergo metamorphism because due to depth the pressure is increase which compacted the rock and fragment

And due to depth the temperature also increase which produced cementation effect in the rock,

Thus metamorphism has occur and produced metamorphic rock.

Point D

It is in the contact with magma therefore at point D due to heat contact metamorphism occur and produced metamorphic rocks.

QUESTION 2

❖ **Part 1** In each box, write down the most likely number from the Deposit produced column in the table above.

Ans:

Box No 1 ⟶ Angular boulder

Box No 2 ⟶ Rounded pebbles and sand

Box No 3 ⟶ Sloping sand layer

❖ **Part 2** In your own words, explain how sediment particles change as they are transported downstream by a river.

Ans:

When the weathered rock go down in river initially rocks and fragment are sharp edge and angular, with time and distance the heavier particles settle down, and due to abrasion some of these particles are changed into Gravel and pebbles further they become coarse and immature sand after this more rounded sand then into finer sand and last change into clay.

QUESTION 3

❖ **Part 1** what type of volcano is shown in the figure by shape and if eruption is more often, which category it fits?

Ans

By shape it is cinder cone volcano.

If its eruption is more then it is called active volcano.

❖ **Part A** Explain how gases trapped in the magma help produce the ash column.

Ans:

Water vapour and carbon dioxide are trapped in magma by the pressure of surrounding magma and rock, When the volcano erupted thus sudden release of pressure causes the gases in the magma to suddenly forth and create volcanic ash and pumice which is then ejected through the volcanic vent to create ash column.

❖ **Part B** Many people around the World live close to volcanoes so, when a volcano erupts, thousands of lives may be at risk.

(i) Suggest ONE sign that might indicate if a volcano is about to erupt.

(ii) Suggest TWO dangers that might result from Ash Fall near a volcano.

Ans:

Part B(i)

1. **Swelling** of the earth
2. Emission of **heat** and **gases** from vent on the volcano.

Part B(ii)

1. It might harm people.
2. It also damage building near it.
3. It might damage forest.

QUESTION 4

❖ **Part (i)**In the table below are statements that refer to either Weathering or Erosion.

Complete the table by writing Weathering or Erosion in the spaces provided.

Ans:

Statement	Weathering/Erosion
Breakdown of rock without it being moved	**Weathering**
Wearing away of rock during transport of rock particles	**Erosion**
A process caused by wind, running water and moving ice	**Erosion**
An effect of plant roots growing in rock joints and fractures	**Weathering**

❖ **Part (ii)** A statue was made from limestone. Rain makes limestone weather more quickly than sandstone. What substance in the rainwater causes this?

Ans:

Rain water is naturally slightly acidic because carbon dioxide form the air dissolves in it causing limestone to be weathered quickly .when acidic rain water fall on line stone, chemical reaction happened new soluble substance are formed in the reaction these dissolved in the water in then wash away.

And sand stone is not chemically reacted with rain water therefore slowly weathered as compared to line stone.

- **Part (III)** Why igneous rocks never contain fossils?

Ans:

Igneous rock formed from lava or magma they never contain fossils because the lava or magma are so hot, at melt everything in its path therefore they never contain fossils.

- **Part (IV)** Granite takes much longer to cool deep underground than basalt lava at the Earth's surface. How and why is the size of the crystals in granite different from the size of the crystals in basalt?

Ans:

The size of the crystals defend on how quickly the molten magma solidified.Magma that cools slowly will form large crystals . Lava that cools quickly will form small crystals.

- Granite is intrusive igneous rock the magma that cool slowly and form large crystals .
- Basalt is extrusive igneous rock the lava that cools quickly and form small crystals.

- **Part (V)** Describe one process that might be responsible for producing the large, angular, poorly sorted fragments in the Scree sediment collecting at the bottom of the cliff?

Ans:

Gravity

Gravity pull down rock and sediment down slopes producing the large angular of poorly sorted fragment at the bottom of the cliff.

THE END