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7386

ENGINEERING GEOLOGY

Figure #1

①

Part - A

Answer:- Frost wedge weathering.

PART-B

Answer:- Sediment grains in a river change during transport from Point A to B. At Point A there is reduction in its edges. Velocity of grains is high and so it's angularity while at B the velocity of grains decreases and also changes come in its angularity hence it converts into roundness.

PART-C

Loose Sediments at C stage changes into solid rock by the lithification process which includes compaction and cementation.

(2)

PART-D

Answer:-

Rocks that are deeply buried in the Earth's Crust may ~~undergo~~ ^{under-goes} metamorphism. The changes that

happen in rocks during metamorphism could be new mineral assemblages or new textures. At Point D two things happen. Firstly the rocks starts melting because of the high temperature and secondly the generation of magma occur which is because of crustal anatexis.

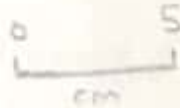
FIGURE #2 (i)

- 1. Clay mud
- 2. Rounded Pebbles and Sand
- 3. Sloping Sand Layers
- 4. Angular Boulders.

Answer



4



2



1

(ii)

Answer:-

Sediment Particles Changed as they are transported downstream by a river. Firstly they discharge from their source, initially their position is angular and when they move downstream their angularity and edge decreases.

PART-C (i)

4

Answer:- If eruption is more often it fits in the category of Stratovolcano.

The type of Volcano shown in the figure is Cinder Cone Volcanoes.

(9)

Answer:- Gases are trapped in Magmas. They help produce ash Column by containing pressure as they are held in Molten rocks the mechanism is same as Carbon dioxide is held in soft-drinks.

(B)(i)

Increase in intensity and frequency of earthquakes is a sign that might indicate if a Volcano is about to erupt.

(B)(ii)

The two damages that might result from ash fall near a Volcano would be on humans especially nearby living around it. The electricity can also be affected by it.

PART - D (i)

(5)

Statement	
Breakdown of rock without it being moved	weathering / Erosion
weathering away of rock during transport of rock particles	weathering
A Processed Caused by wind, running water and moving ice	Erosion
An effect of Plants roots growing in rock joints and fractures	Mechanical weathering

(ii)

Rain Makes limestone weather more quickly than Sandstone because of their Chemical Composition. The substance in the rain water causes Carbonic Acid (H_2CO_3). when Carbonic Acid comes in contact or mixes with Carbon dioxide, the PH of rain water changes. It turns Acidic and it leads to weathering of limestone more quickly.

(iii)

Igneous rocks never contain fossils because they are formed from magma / lava which is characterized by high temperature. Due to High temperature ~~they~~ it melts fossils.

(iv)

Granite Magmas makes large Crystals due to Prolong Crystallization while the basaltic Lava makes short Crystals due to short time Crystallization.

(v)

Less transportation or Erosion might be responsible for producing the large angular, ~~but~~ poorly sorted fragments in the scree sediment collecting at the bottom of the cliff.