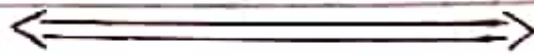


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A Figure, shows part of the Earth's crust and the location where the same Rock cycle processes take place

(A) Rock is broken down by frost rain and sun at A. What name is given to this process?

(Ans) Frost wedge weathering -

(B) How is sediment grains in a river changed during transport from A to B. State two different in the likely appearance of the grains.

(Ans) The sediment reduce by transportation. The grains during A having high velocity and angularity while at position B the grain velocity decrease and its angularity convert into roundness.

(C) How do loose sediments at B become change into solid rock?

(Ans) At C stage the sediment convert into solid rock due to lithification process which is compaction and cementation.

(D) Rocks are the deeply buried in the Earth's crust may undergo metamorphism Describe two changes that happen in rocks during metamorphism and explain point D?

(Ans) When rock undergoes burial condition then metamorphism occur. The changes may be new textures, new mineral assemblages or both. at point d due to high temperature the rock start melting and magma generation occur due to crustal anatexis.

B Figure 2, below shows the size and shape of typical sediment particles from the the deposit produced.

1. Clay mud
2. Rounded pebbles and sand
3. Sloping sand layers
4. Angular boulders

(i) In each box, write down the most likely number from the Deposit produced column in the table above

Ans

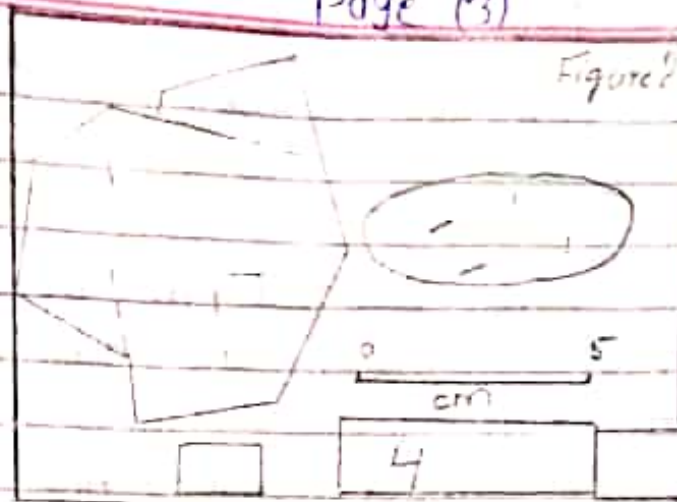


Figure 3

(ii)

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

Ans

The sediments change due to transportation in a river. When sediments detach from the source then its initial position is angular after that when it moves downstream then its edges and angularity decrease.

Figure 3, Show the structure of a volcano and the rock layers beneath.

(i)

What type of volcano is shown in the figure by shape and if eruption is more often which category it fits?

(Ans)

Cinder Cone volcanoes -

If eruption takes place more than one time it will be composite or

(iii)

stratovolcano producing an ash column that rises thousands of meters

erupt the volcano summit.

(a) Explain how gases trapped in the magma help produce the ash columns.

(Ans) a. Magmas contain varying amounts of dissolved gases (volatiles) held in the molten rock by confining pressure. Just as carbon dioxide is held in cans and bottles of soft drinks.

(B) Many people around the world live close to volcanoes so, when a volcano is erupts thousands of lives may be at risk.

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

(Ans) (i): Sign of volcano eruption is fissure and fracture happen in earth surface

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

(Ans) (i) Impacts of volcano on human life it destroy the life it destroy the life and it cause damage of building

D: Answer the following questions?

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

Ans (i):

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

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

Ans The limestone erosion occurs quickly as compared to sandstone due to their chemical composition which is susceptible for chemical weathering. Water having carbonic acid when it passes from atmosphere which CO_2 is present it makes water acidic and weathering of

of limestone happen quickly -

(iii) why igneous rocks never contain fossils?

Ans The igneous rocks formed from lava/magma which possess high temperature which melt the living things so organisms cannot be preserved at that temperature.

(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 Granite magma took place long time in substance from crystallization which result large crystals while in contrast the basalt lava cool rapidly which take short time from the size of the crystals in

(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 The large sediments in scree is due to less transportation and less erosion -