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D: Answer the following questions.

i In the below are statements that refer to either whethering or Erosion. Complete the table by writing weathering or erosion in the spaces provided.

Statement	Weathering OR Erosion
i Breakdown of rock without it being moved	i Weathering
ii Wearing away of rock during tranport of rock particles	ii Erosion
iii A process caused by wind, running water and moving ice	iii Erosion
iv An effect of plant roots growing in rock joints and fractures	iv Weathering

ii A status was made from limestone. Rain makes limestone weather more quickly than sandstone. What substances in the rainwater cause this?

Answer:-

Sulfurous, sulfuric acids, nitric acids, carbondioxide mix with water maked carbonic acid and all other polluted particles dissolve in rainwater and reacts with each other and falls on limestone and acids have well corrosive effect on limestone as compare to sanstone and as a result limestone weather more quickly than sanstone.

iii Why igneous rocks never contain fossils?

Answer:

Igneous rocks do not contain any fossils. This is because any fossils in the original rock will have melted when the rock melted to form magma.

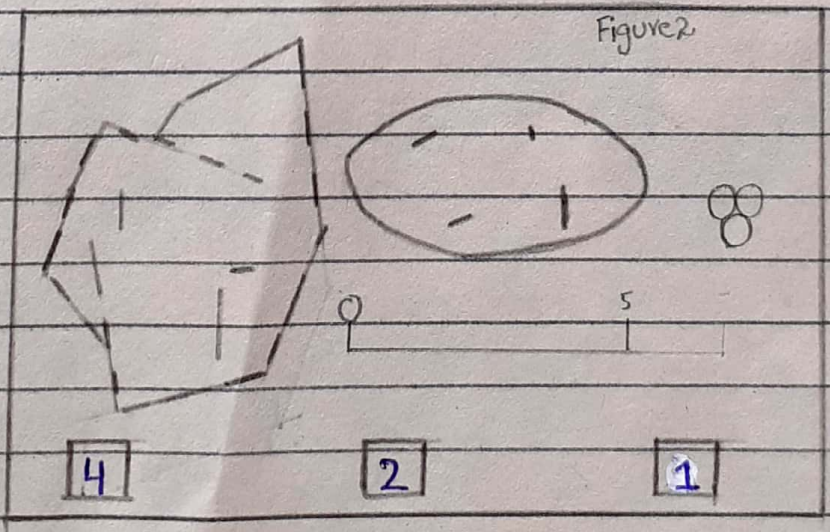
iv Grani takes much longer to cool deep underground than basalt lava at the Earth's surface. How & why is the size of the crystals in granite different from the size of the crystals in basalt?

Answer:-

The size of the crystals depends on

how quickly the molten magma solidified. If a molten magma solidifies slowly then rock will have large crystals and if molten magma solidifies quickly then rock will have small or no crystals. As granite is intrusive rocks and it solidifies slowly and large number of crystals are attached and form big in size. On the other hand basalt is extrusive and it solidifies quickly and small number of or no crystals are attached and form small in size.

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



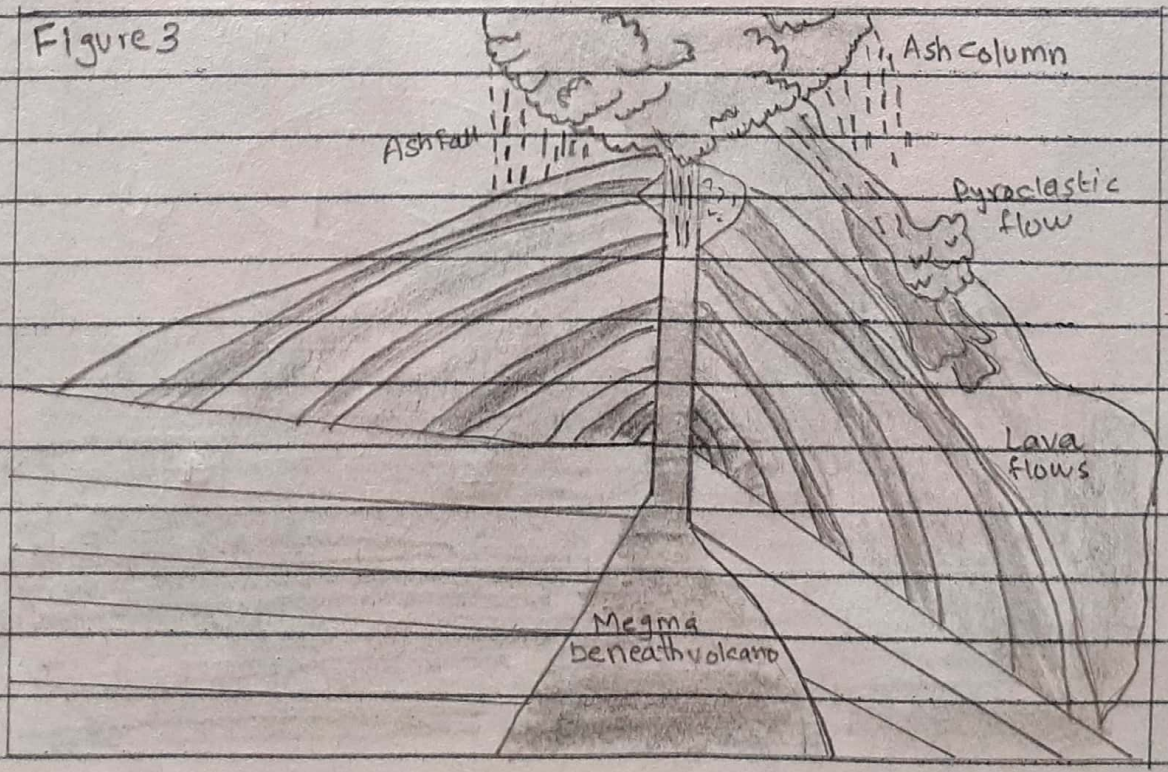
1. Clay mud 2. rounded pebbles and sand 3. Sloping sand layers 4. Angular boulders	i In each box, write down the most likly number from the deposit produced column in the table above.

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

Answer:

When the sediment paricles are transported downstream by a river. the particles particles begins to stick to each other they are cemented together by clay, or by minerals like silica or silicate and calcite. Calcite and silica are common minerals that cement the sediments together and then the sediments particles are changed into sedimentry rocks.

Figure 3



C Figure 3, shows the structure a volcano & the rock layer beneath.

(I) What type of volcano is shown in the figure by shape and if eruption is more often, which catogorey it fits?

Answer:-

The type of volcano is shown in the figure is "Active volcano". By shape it is "composite volcano" and its eruption it fits in "Liquid produtt volcano".

(II) The eruption show in figure 3 in producing an "Ash Column" that rise thousands of meters above the volcano summit.

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

Answer:-

When gases are trapped in the magma volcanic ash is formed during explosive volcanic eruption when dissoluced gases in magma expand and escape violently into the atmosphere The force of the gasses shatters the magma and propels it into the atmosphere where it escape from a magma chamber below the surface and the ash column is prodced.

b Many people arround the word live cloced to volcanoes so, when a volcano erupts, thousands of lives may be at risk

i Suggest one sing that might indicate if a volcano is about to erupt.

Answer:-

An increase in the frequency and intenisty of earthquakes.

ii Suggest Two dangers that might result Ash fall near a volcano.

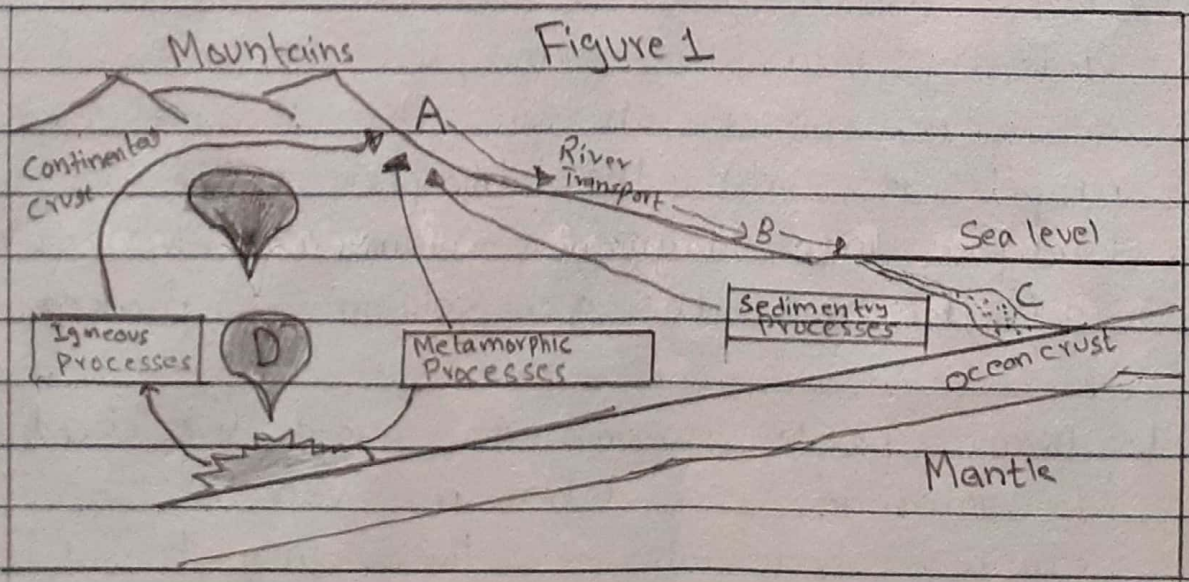
Answer:

(1) It may cause danger to the flying jet air craft passing near the volcano.

(2) It may damage people's health and farming

A. Figure 1, show part of the Earth's crust and the location where some rock cycle processes take place.

Figure 1



a Rock is brocken down by frost, rain and sun at A. What name is given to this process?

Answer:-

The process is Physical / Mechanical weathering.

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.

Answer:-

It is due to the reduction in particles size & raunding of originally angular fragment and by accumulation and deposition of small other particles and subsequent cementaion of minerals and by the force of gravity acts to move the particles along the sloping surface on which they are rest.

* The first difference in the likely appearance of the grains is "size" they are different from each other on the basis of size.
* The second difference in the likely a appearance of the grains is its "texture" they are different from each other on the basis of texture.

c How do loose sediments at C become changed into solid rock?

Answer:-

Sediments are squeezed together by the weight of ovelying sediments.

on the top of them. Fluid fill in the spaces between the loose particles of sediment and crystallize to create a rock by cementation. Calcite and silica are common minerals that cement the sediment together and form a solid rock.

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

Answer:-

The two changes that happen in rock during metamorphism are :-

1) Size and Shape Changes
2) Mineral Changes

Size and Shape Changes:-

Size and shape changes occur due to changing of temperature on rock, causing the rock to break apart. In response to pressure, rock may deform or fracture. If stress is removed from rocks that have deformed, they may not return to their original shape and size.

Mineral Changes:-

During metamorphism mineral changes in rock the change occurs primiraly due to heat, pressure

and chemically active fluids. Different types of atoms and inorganic compound get involve in rock. By the change of chemical enviroment of the rock mineral are changed in the rock.
From Point D metarmorphism rock can change into igneous or sedimentory rock. When hot liquid magma is cooled their minerals can form crystals. At the surface metamorphic rock will de exposed to weathering process & may break down in to sedimentary rocks, which would starts the entire cycle anew.

D(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?

Answer:-

Scree sediments at the bottom of a cliff are large angular and poorly sorted because of the process of

Glacial Transport:-

Ice is the poorest sorter of sediment. Glaciers can transport almost any size sediments easily, and when ice flow slows down or stops, the sediment is not deposited, due to the density of the ice. As a result, sediments

deposited directly by ice when it melts are usually very poorly sorted.