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Section / B

Paper / Engineering Geology

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Q1: Figure 1; showes part of the earth's crust and the locations where some 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(A): The name given to this process is "Weathering"

(B) How is sediment grains in a river changed during transpost from A to B.

Ans(B): Size and shape.

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

Ans(C): After Lethezication and Compaction loose sediments grained convert into sedimentary rocks. During methamorism pressure and temperature

are responsible for the change nature of sedimentary rocks/ Methamosism rocks/Ignious rocks are converted into methamosism rocks.

(D) Rocks that are deeply buried in the earths crust may undergo metamosphism. Describe ~~four~~ two changes that happen in rocks during meta-mosphism and Explain point D?

Ans (D): Due to high Temperature the free existence rocks changed into molten rocks/ with from megma.

Figure (2)

Below shows the size and shape of typlical sediments particles from the deposite produced.

(1): In each box write down the most likely number from the deposite produced column in the table above.

Ans(1):

Box No.1:- Angular Boulders.

Box No.2: Rounded Pebbles and sand.

Box No.3: Clay mud.

(2): In your own words, explain how sediment particles change as they are transported down-stream by river.

Ans(2): Explaination:

During transportation of sediment at upstream environment the energy of transporting agents is high and its carry huge and massive load which is comprised of boulders and cobbles. With the passage of time the energy of stream decreases

is a result of which the transports load nature, shape, and also size varies.

Figure(3): shows the structure of a volcano and the rock layers beneath.

(1): What type of volcano is shown in the figure by shape and if eruption is more often, which category of fits?

Ans(1): Prockastick or composite volcanic.

(2) The eruption shown in figure 3 is producing an "Ash Column" that rises thousands of meters above the volcano summit.

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

Ans(a): Due to high vescosity of megma the free existing gases, trapped in this megma is the result

of which violent explosion take place.

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

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

Ans(B): (i) We provide sensor which counter the emission of is to which are other gases. Due to anmomlously value of gases. Concentration we can metigate the population of specific area. to minimize risk.

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

Ans(ii) 1. It causes acidic 2. Rain.

(D) (i) In the table below are statements that refers

to either Weathering or Erosion.

Ans(i) (i) Weathering.
(ii) Air erosion.
(iii) Erosion.
(iv) Weathering.

(ii)

Ans(ii): The rainwater nature is acidic this acidic water nature is actually responsible the limestone resolution. In the atmosphere present carbondioxide. Due to high pollution in this carbondioxide the rainwater are mix. At the result we have the carbon dioxide and actually this carbon dioxide is responsible for the weathering of limestone statues.

(iii)

Ans(iii): Igneous rocks does not contain any fossils. This is because any fossils in the original rocks will have melted. And when the rock are melted to form magma.

(iv)

(iv)

Ans: Because the lava in surface area. The lava surface are exposed at the result the lava the temperature is ~~exposed~~ devolt quickly.

Basalts lava is surface phenomenon.

And granite is subsurface phenomenon.