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Subject : Engineering Geology

Department : Civil Engineering

Section : A

Mid term Assignment

A. Figure 1, shows part of the earth's crust and the locations where some Rock cycle processes take place.

Answer (a) Figure 1.

* Rock is brooken down by first rain and Sun, so the process is called mechanical weathering.

Answer (b) Figure 1.

* It is change due to the flow of water it is also called sediment load.

1) If the flow of water is strong enough to take the particles, it become part of suspend load.

2) Bed load particles travel with flow by sliding or bouncing along the bottom.

OR

The sediment grains will become rounder in shape and smaller in size during there transport from A to B. At 'A' the grain will be angular in shape and larger in size, while at 'B' their shape will become rounder and hence the size will reduce. i.e. they will become smaller.

Answer (c) Figure 1.

* It is change due to a process called "Lithification" means that stone it is a combination of two process.

i) Compaction.

ii) Cementation.

The Sediments coming from mountains transported through the river accommodates at the ocean crust and they bind together become of different forces and hence change into solid rocks.

Answer (d) Figure 1.

* 1) It is created by physical or chemical alteration by heat and pressure of an existing igneous.

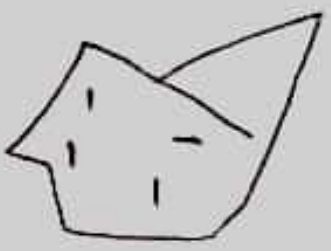
2) OR a sedimentary material into a denser form.

on the point 'D' the methamorphic rock changes again to magma and form igneous.

B. Figure 2. below shows the size and shape of typical sediment particles from the depesit produced. (3)

*

1	Clay mud.
2	Rounded Pebbles and sand.
3	Sloping sand layer.
4	Angular boulders.



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2

1

Answer (ii) Figure 2.

* The sediment particles transport due to the flow of water. The particles slides or bounces along the bottom some are very small having (0.00195 mm in diameter) so these molecules stay affect. And when the water flow is fast so it create a upward current that makes these particles move faster and add faster.

(c) · Figure 3, shows the structure of a volcano and the rock layers beneath.

Answer (i) Figure (3)

* It is a composite volcano and if eruption is more often, it will convert to strato volcano these both are same but it has a smoother, lower profile then composite volcano.

Answer (ii)(a) Figure (3)

* It is produced due to ~~volv~~ volcanic eruption when dissolved gases in magma expand and escape violently in two the atmosphere. The force of gases shatters the magma and propels it into the atmosphere.

Answer (b)(i) Figure (3)

* Rise of magma towards the surface, which generates earth quakes.

Answer (b) Figure (3)

1) It can threaten the health of people and life stock

2) It can damage electronics and machinery and telecommunication.

D. Answer the following questions?

Answer No. (i)

	Statement	Weathering OR Erosion
1.	Breakdown of rock without it being moved	Weathering.
2.	Wearing away of rock during transport of rock Particles.	Erosion.
3.	A Process of caused by winds running water and moving ice.	Erosion.
4.	An effect of Plant roots growing in rock joints and fractures.	Weathering.

Answer No. (ii)

Carbondioxide,

Droplits of rain water (H_2O) in the clouds dissolved carbon dioxide (CO_2) in the atmosphere, a when combined these from Carbonic acid (H_2CO_3). The sligtly acidic rain then falls onto the ground the rain soaks into the ground. The rain soaks into the flows over the caposed limestone and & causes the decay of limestone. In other words Carbonic acid is the substance in the rain water.

Answer No. (iii)

~~Ans~~

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.

Answer No. (iv)

The difference is between silica content and their rules, if magma cools quickly.

Example: When basalt lava erupts from volcano then many crystalls from very quickly and the resulting rocks is fine-grained, with crystalls usually less than 1mm, in size, & coystals have more time to grow large size.

Answer No. (v)

As a result of freeze than weathering water seaps into cracks in the rock, expanding when it freezes and seeping in deeper when it melts, gradually splitting the rock apart. These fragments are removed by gravity and fall onto the scree slopes beneath.
