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Subject = Geology

A :- Figure 1 :-

(a) :- Geological weathering

(b) :- Sediments are fragments that are broken down as a result of weathering. Sedimentary rocks are formed by the accumulation or deposition of small particles and subsequent cementation of minerals or organic particles on the floor of oceans or the other body of water at the earth surface.

:- clastic sedimentary :-

Sand stone, shale are clastic sedimentary rocks.

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∴ Organic / crystalline sedimentary rock:-

Rock salt from sea water
H₂O evaporate, salt stay
behind in form of crystal
gypsum, coal, coquina stone

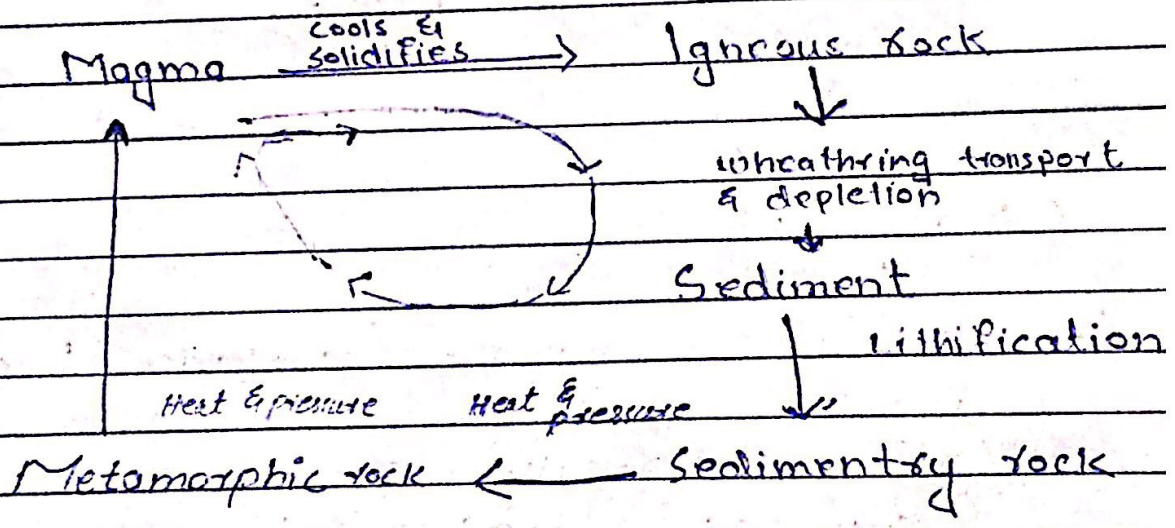
② Due to cementation some other
fragments combine with it at
passage of time and
it become solid with
the passage of time.

③ Metamorphic rock arises from
the transformation of existing
rock type in a process
called "metamorphism" which
means change in form, the
original rock is subjected to
heat and pressure, causing
chemical change. The
protolith may be
sedimentary, igneous or
existing metamorphic rock

∴ Rock form due to heat
is contact metamorphism.

:- Rock formed due to Pressure in regional metamorphism.
 granite → gneiss
 Limestone → marble

:- Point to state that due to high heat and pressure the magma comes out of the earth in form of lava known as volcano and again the cycle is continued.



B: figure 2

- (i) (ii) clay mud :- Less than 0.004 cm
- (iii) rounded pebbles :- 2 mm
- (iii) sloping sand layers :-



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From one to two inches

(i) Angular boulders:- Normal
12" - 36"

(ii) Sediments particles changed as they are transported down stream by river, because some other particle combine with it or cementation occur. b/w them and a stone is formed with the passage of time.

C:- Figure: 3

(i) it is Active volcano because Active volcano erupts more often. mostly occur at crustal plate boundaries, often make a great arc along the ocean.

(ii) Part (a) :-

Gases trapped in the magma help to produce ash column, because when something is subjected to

heart and pressure it will convert to ash and will move due to pressure of gases.

(ii) Part (b) :-

(i) There are many specific signs that a volcano is erupting the release of gases and the explosion of hot lava are some of the indicators. before a volcano erupts there is normally an increase in earthquakes and tremors near and under volcano.

(ii) Volcano ash can be very detrimental to human health, due to harmful aerosols and poisonous gases the ash is made up of. it includes respiratory problems, eye problems, skin problems etc.

Q :- Answer the following Questions

① Table

Statement

- (i) Break down of rock without it moved = weathering
- (ii) Wearing away of rock during transport of rock particles = weathering
- (iii) A process caused by wind, running water and moving ice = Erosion
- (iv) An effect of plant roots growing in rocks joints and fractures = weathering

(ii) Limestone would be most effected by Rain, Rain contains carbonic acid which react chemically with calcium carbonate in limestone.

(iii) Igneous rock have no fossils because any fossils in the original rock will have melted when the magma formed.

(iv) Granite is intrusive which means that the magma was trapped deep in the crust and probably took a very long time to cool down enough to crystallise into solid rock. The crystals in granite being intrusive in nature will be larger than those in Basalts.

(v) Erosion is the process where weathered rocks and particles of soil are moved over land. After the rocks are broken down from weathering erosion carries them & sediments and deposits it in a new location and when the sediment is transporting the cementation process occurs with the passage of time and the sediments being collected in the bottom of cliff.

END