

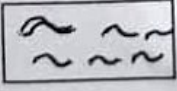
Instructors : Eng. Saheem Murshid

Section : (1, 2)

Question #1 / Fill the spaces:

(15 Marks)

11

- 1- Earth flow mostly occur on the hill side in.....~~Semi arid~~.....area.
- 2- ....Agate..... is a banded form of chert.
- 3- Gray-wacke has.....clastic..... texture.
- 4- Greatest volume of metamorphic rock is produced by.....Regional..... metamorphism.
- 5- A mount of run-off is...36.000.....Km<sup>3</sup>/year.
- 6- ....Calcite..... is the mineral which hardness equals 3.
- 7- ....Gypsum..... is the mineral which has malleable property.
- 8- As the size of the channel decrease then the ratio of (P/A) ...increase.....
- 9- The size of the pebble is .....4-64..... mm.
- 10- This rock notification  refers to the rock called.....WGP.....
- 11- Most of the stream load is carried as.....competency..... load.
- 12- Stream capacity.....maximum load a stream can carry.
- 13- The carrying out of fine material by water is called.....Fluviation..... Process.
- 14- ....organic matter + minerals.....solid part of soil.
- 15- As the particle size increase, then rate of weathering.....decrease.....

Question #2

Classify the following rocks and minerals:

Rock or Mineral	MINERAL (L, D, N)	IGNEOUS (Texture)	METAMORPHIC (Texture)	SEDIMENTARY		
				Detritus	Organic	Inorganic
1. Phyllite			Foliated ✓			
2. Muscovite	Dark silicate mineral					
3. Gypsum	Non silicate mineral					
4. Arkose				✓		
5. Marble			non-foliated			
6. Diorite		Phaneritic				
7. Graywack				✓		
8. Quartz	Light silicate mineral					
9. Obsidian		glassy ✓				
10. Coquina					✓	
11. Andesite		aphenitic & Porphyritic				
12. Basalt		aphenitic				
13. Feldspar	Light silicate mineral				✓	
14. Chalk						
15. Ryholite		<del>aphenitic</del> aphenitic				

9

a) Explain how parent material control weathering?

Cause weathering of mineral that composing the soil, which ~~the~~ the soil formed from and consider the most important factor that affecting the newly soil formed and divided into :-

1) underlying bedrock :- fragments forming the soil be weathering processes on a mass of rock.

2) unconsolidated deposits :- soil transported by mobile agent can be (alluvial, colloidal, aeolian soil).

b) Explain how composition of the material affect mass wasting?

some slope's composed from calcareous rocks which consider a weak rock and can collapse under the influence of running water, and some slope's form from siliceous rock which consider strong rock and very stable.

the gypsum and clay may affect the composition of mass, when the water dissolve it and carry them away from a mass causing pores rock which affect the stability of the mass.

c) Discuss the suitability of chert as a construction material?

the chert is a very solid rock and exists as thin layers, the chert cannot be used as the base (foundation)

because of existing chert as thin layers and can broke under loads.

in construction also cannot be used because :-

1) cannot be easily broken into small pieces

2) if broke, it gives sharp edges.

3) may (cost) the equipments that use in construction.

4) absorption is little to no, so cannot absorb water.

14

Question (3)

(15Marks)

Mach between those in column (1) with those in column (2) in the table below:

COLUMN (1)	COLUMN (2)
✓ 1- Ripple mark	(13) soft brown coal
	( ) plagioclase
✓ 2. Unloading	(4) tropical area
	( ) spheroidal weathering
✓ 3. Sub-soil	(14) peridotite
	( ) C-horizon
✓ 4. Bauxite	(15) single chain
	(11) water vapor
✓ 5. Conglomerate	(6) Orthoclase
	( ) double chain
✓ 6 Feldspar contain k-ions	(8) diamond
	( ) dry area
✓ 7. Sorting	( ) dark chert
	(5) well sorted
✓ 8. Found as placer deposit	(7) degree of similarity in grain size
	( ) contact metamorphism
✓ 9. Dolostone	(1) wave sand on surface of sedimentary rock
	(2) onion like layers
✓ 10 Flint	
✓ 11. Volatile material	(X) poorly sorted
	( ) Diorite
✓ 12. Inclination of strata in sedimentary rock	(3) B-horizon
	(9) calcite
✓ 13. Lignite	
✓ 14. Coarse grained igneous rock	(10) dark chert
✓ 15. Aguite	(12) Dip