

Geology Department Faculty of Sciences Assiut University First level students		Second term examination Fundamentals of Geology (100 G) May, 2017 Time allowed: One hour
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Second Part: External Processes (25 marks)

الاسئلة في 4 صفحات . اجب عنها كلها

Answer the following questions:

1 - A fault is observed where the hanging wall is displaced upward relative to the footwall..... (One mark)

- a. this is a right-lateral strike-slip fault. b. this is a left-lateral strike-slip fault.
c. this is a reverse fault. d. this is a normal fault.

2 - In a syncline, the youngest rock layers..... (One mark)

- a. dip away from the fold axis. b. are found nearest the fold axis.
c. are found on the limbs of the fold. d. none of these are correct.

3- Oxidation occurs when..... (One mark)

- a. rocks are deeply buried. b. rocks are exposed to the atmosphere
c. water dissolves rocks. d. feldspars are chemically altered to clays

4- Fossils that show geographically widespread and short span of time are known as..... (One mark)

- a- Body fossils b-Index fossils c-Trace fossils

5- The decline in the level of the water table around a pumping well is known as..... (One mark)

- a. the porosity parameter. b. the permeability gradient.
c. the cone of depression. d. the sphere of influence.
e. zone of saturation f. all the above.

6- Caves and cavern systems are formed by..... (One mark)

- a. evacuation of magma chambers during volcanic eruptions.
b. water moving through aquifers. c. removal of water from aquifers.
d. groundwater dissolving limestone and dolomite. e. all the above.

7- Which of the following is not a type of sand dune..... (One mark)

- a. parabolic. b. barchan. c. transverse. d. braided channels.

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8- Rocks with flat, wind-abraded surfaces are called..... (One mark)

- a. barchans. b. blow-outs. c. pediments. d. ventifacts.
- e. sand dunes. f. all the above.

9 - Dunes tend to be oriented..... (One mark)

- a. parallel to the prevailing wind. b. perpendicular to the prevailing wind.
- c. both (a) and (b). d. at 45 degrees left or right of the prevailing wind.

10- Monoclines are..... (One mark)

- a. upward circular or slightly elongated structure.
- b. large, step-like folds in otherwise horizontal sedimentary strata.
- c. a line connecting points of maximum curvature along a fold.

11 - Non-conformity occurs when..... (One mark)

- a. new horizontal sedimentary beds deposited over an old tilted sedimentary beds.
- b. when a series of sedimentary layers are deposited over an eroded surface of igneous or metamorphic rock.
- c. when the hanging wall block moves down relative to the footwall block.
- d. both (a) and (c).

12 - An oxbow lake (One mark)

- a. is created by the cutoff a meander. b. is formed by stream aggradations.
- c. is formed by flooding. d. both (b) and (c). e. none of the above.

13 - Springs..... (One mark)

- a. occurring where the water table intersects the earth surface.
- b. occurring where groundwater under pressure rises above the surface of the aquifer to the artesian surface.
- d. are produced by groundwater percolating into areas heated by igneous activity.
- e. all the above f. none of the above.

14 - Physical weathering occurs..... (One mark)

- a. when a rock is broken down by chemical action resulting in a change in the composition of a rock.
- b. when carbon dioxide interacts chemically with minerals.
- c. Where wedges of ice in rocks widen and deepen cracks.
- d. when rocks are physically broken into smaller pieces of the same composition, without changing the chemical composition of the rock.
- e. none of the above.
- f. both (b) and (d).

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15 - Permeability is (One mark)

- a. the ability of a solid to allow fluids to pass through.
- b. the process by which plants release water vapor to the atmosphere.
- c. the amount of water vapor in the air relative to the maximum amount
- d. of water vapor the air can hold. e. the percentage of pore space in the rock.

16 - Desert pavement results from..... (One mark)

- a. flash floods carrying large rocks.
- b. deflation by wind.
- c. chemical weathering.
- d. volcanic ejecta covering the desert.

17 - Barchans are..... (One mark)

- a. crescent- shaped duns.
- b. ridges parallel to the wind direction.
- c. ridges transverse to the wind direction.

18 - Dunes tend to form..... (One mark)

- a. parallel to the prevailing winds.
- b. perpendicular to the prevailing winds.
- c. either or both of the above at times.
- d. they have no relation to wind direction.

19 - The breaking down of rocks into smaller fragments is..... (One mark)

- a. weathering.
- b. erosion.
- c. done only by animals.

20 - Exfoliation or flaking of rocks due to expansion in extremely high daytime temperatures with contraction in extremely low nighttime temperatures is a form of..... (One mark)

- a. erosion.
- b. physical weathering.
- c. chemical weathering.

21 - The boundary between the saturated zone and the unsaturated zone is called the..... (One mark)

- a. water table.
- b. aquifer.
- c. aquiclude.
- d. porosity.

22 - Is the groundwater table flat..... (One mark)

- a. yes, it is always at a constant level below the surface and flat like a table.
- b. no, it roughly follows the contours of the land surface.
- c. none of the above.

23 - A fossil may be..... (One mark)

- a. an impression.
- b. a trace of any animal or plant.
- c. a cast.
- d. all the above.
- e. none of the above.

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24 - Normal graded bedding is characterized by..... (One mark)

- a. an increase in sediment size from bottom to top.
- b. a decrease in sediment size from bottom to top.
- c. an unsorted mixture of many different sediment sizes.

25 - Conditions promote fossilization are..... (One mark)

- a. hard body parts such as skeletal bones or exoskeletons.
- b. rapid burial.
- c. lack of oxygen.
- d. none of the above.
- e. all the above.

Good Luck

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