University of Baghdad College of Science Admission Exam for MSc.

2015-2016 Time : 3 Hours

Dept. of Geology

Answer All questions

Select the correct answer:

- 1. The premise that present-day processes have operated throughout geologic time is the principle of
 - a. organic evolution;
 - **b**. plate tectonics:
 - c. uniformitarianism;
 - d. geologic time;

2. The movement of plates is thought to result from

- a. density differences between the inner and outer core;
- **b**. rotation of the mantle around the core;
- c. gravitational forces;
- **d**. the Coriolis effect;
- e. convection cells.

3.Microresistivity logs are used to measure:

- a. resistivity of uninvaded zone
- **b.** resistivity of invaded zone
- c. resistivity of transitional zone
- 4. The point within Earth where seismic waves originate is called: (fourth class)
 - a- epicenter
 - b- focus
 - c- fold
 - d- fault scarp

5.Geomagnetic field has : (fourth class)

- a- two components
- b- one component
- c- three components
- d- has no component

6. Drift correction curve is drawn between: (third class)

- a- gravity values and distance
- b- magnetic intensity values and time
- c- gravity values and time
- d- gravity values and acceleration values

7. Geomorphic evolution is commonly:

- a- Complex.
- b- Simple.
- c- The same intensity.

8. An orderly sequence of landforms is produced because:

- a- One erosional agent act upon the earth's surface.
- b- Different erosional agents act upon the earth's surface.
- c- Mass wasting or gravitative transfer.

9. Continental crust isthan oceanic crust.	
	Hotter
b-	Colder
C-	Thicker
	Thinner
u-	
10. Answer (Yes) or (No) for the followings:	
	A. Bowen Reaction Series represents the crystallization of minerals in the acidic igneous rocks. B. Pressure and chemical composition are the factors controlling the crystallization of minerals in igneous rocks.
	C. Fe-Mg minerals represent the continuous Bowen Reaction Series.
11. Answer (Yes) or (No) for the followings:	
11.711	A. Agents of metamorphism are the pressure and temperature.
	B. Mylonite is a rock formed by thermal metamorphism around igneous bodies.
	C. Areoles are the rocks that effected by pressure in dynamic metamorphism.
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12. Answer (Yes) or (No) for the followings:	
	A. Oxidation and carbonation are the main processes in erosion of parent rocks.
	B. Greywacke is a sandstone rock contain more than 50% argillaceous matrix
	C. Dolomite and calcite are only the carbonate minerals formed during diagenesis.
 13. Which of the following is hypothesis for Pleistocene extinctions? a-meteorite impact. b – prehistoric overkill. C –freezing d-volcanism. 14. The facial suture is a very important for classified: a –gastropod .b –trilobite . c –cephalopod. d –foraminifera. 15. Which of the following has been used as evidence for continental drift? a –continental fit. b –fossil plants and animals. C –similarity of rock sequences. d –all of these. 	
16. The percentage of a rock's total volume that is taken up by pore space is called the	
	1-permeability
	2-recharge
	3-aquifer
	4-porosity
17. Hard water contains large amounts of	
	1-lead
	2-sodium
	3-calcium
	4-silicon
18. With respect to the Earth's land surface, which of the following expressions is correct?	
	1-precipitation = evaporation - runoff
	2-precipitation = runoff - evaporation
	3-precipitation = evaporation + runoff
	4-precipitation = evaporation * runoff
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Tick the appropriate answer below?

19 Ionic substitution in minerals depends on:

- O. Ionic charge
- O. Ionic radius
- O. Chemical activity
- O. All above
- 20. Si is:
 - O. Chalcophile elements
 - O. Lithophile elements
 - O. Siderophile elements
 - O. Biophile elements

21. Cations of alkali metals are of

- O. High ionic potential
- O. Medium ionic potential
- O. Low ionic potential
- O. No ionic potential
- 22. Compare between the continental crust and oceanic crust with draw in terms of density, thickness and composition?
- 23. What are the six elements that form up 99.1% of the bulk silicate earth?
- 24. Name and describe the main ways in which a stream transports sediment
- 25. Discus the type of streams
- 26. How can fossils be used to interpret ancient depositional environments?
- 27. Briefly describe the carapace of the Ostracoda.
- 28. How have plate tectonics shaped the surface of the earth?
- 29. Under what condition does sinkhole tend to develop?
- 30. Discuss in brief account the differentiation process of minerals in Bowen Reaction Series.
- 31. Discuss briefly the classification of Dunham for carbonate rocks.
- 32. Name and describe the various types of seismic waves (first class)
- 33. Compare between Wenner and Schlumerger arrangements in measuring resistivity. (Third class)
- 34. Why does groundwater move so much slower than surface water?
- 35. Explain briefly types of fold traps.