



Zagazig University
Faculty of Science
Geology Department

Principles of Geology (I) (G.101)

1st level
(Credit hours)



Total Score: 60 deg
12 January 2026
Time: 120 Min

(I) Choose only one answer for each sentence from the following (20 deg.)

1.	The Oceanic floor and continents are the components of			
	(a) Core	(b) Mantle	(c) Crust	(d) Asthenosphere
2.	 is sets of beds that are inclined relative to one another			
	(a) Cross Bedding	(b) Folds	(c) Ripple marks	(d) Bed load
3.	Aquifers that confined under pressure are called			
	(a) Un confined	(b) Artesian systems	(c) Perched water	(d) Water table
4.	 is the study of layered rocks and their interrelationships.			
	(a) Paleontology	(b) Stratigraphy	(c) Mineralogy	(d) Petrology
5.	 are wave like structures that produced by deformation of bedding, foliation or other planar surfaces in the rocks.			
	(a) Ripple marks	(b) Sand dunes	(c) Folds	(d) Mud cracks
6.	Any water added to the aquifer called			
	(a) Discharge	(b) Specific retention	(c) Porosity	(d) Recharge
7.	 is a circular or elliptical anticlinal structure.			
	(a) Syncline fold	(b) Dome	(c) Strike-slip faults	(d) Basin
8.	Extends from the land surface to a maximum depth of a meter or two and is the zone that supports plant growth			
	(a) Capillary fringe	(b) Intermediate zone	(c) Saturated zone	(d) Soil Moisture
9.	At the end of half-lives, the mixture is 25 percent parent and 75 percent daughter.			
	A- One	B- Two	C- Three	D- Four
10.	The supercontinent that broke apart to form Gondwana and Laurasia was called:			
	A- Wegener	B- Pangea	C- Tethys	D- Panthalassa

11.	Plate tectonics theory suggests that the continents were once all combined into a supercontinent called Pangea, with the southern part called and the northern part called Laurasia			
	A- South America	B- Africa	C- Europe	D- Gondwana
12.	 boundaries occur when two plates slide towards each other commonly forming either a subduction zone or a continental collision			
	A- Convergent	B- Divergent	C- Transform	D- Strike slip
13.	a..... is a result of the sea floor at a spreading centre floats to a high elevation, forming an undersea mountain chain.			
	A- Trench	B- Volcanic mountains	C- Mid-oceanic ridge	D- Trench
14.	The convergence of two oceanic plates creates an island arc and.....			
	A. Trench	B. Volcanic mountains	C. Mid-oceanic ridge	D. Trench
15.	The convergent boundary of an oceanic and continental plates form a			
	A. Trench	B. Volcanic mountains	C. Mid-oceanic ridge	D. Trench
16.	Which seismic wave cannot travel through liquids?			
	A. P-wave	B. L-wave	C. S-wave	D. Surface - wave
17.	Which mineral weathering is caused by hydrolysis to form clay?			
	A. Quartz	B. Feldspar	C. Halite	D. Calcite
18.	What is the point within the Earth where seismic waves originate called?			
	A. Hypocenter	B. Epicenter	C. Moho	D. Escarpe
19.	What type of weathering involves the breakdown of rocks without chemical change?			
	A. Chemical weathering	B. Oxidation	C. Dissolution	D. Mechanical weathering
20.	What is the term for soil formed in high-rainfall tropical regions?			
	A. Pedocal	B. Pedalfer	C. Laterite	D. Loam

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(II) Mark True (T) or False (F) on the following sentences [20 deg.]	
1. Porosity is the capability of a rock to allow the passage of fluids.	()
2. Mud cracks are characteristic of the upper surface of the rock beds.	()
3. Aquitards or aquicludes are porous and permeable, water-containing rock units.	()
4. Hanging-wall down faults is called reverse faults, and hanging-wall up faults is called normal faults	()
5. In Syncline fold, the youngest strata are in the core of the fold.	()
6. The continental crust consists of granitic rocks and lower thickness than oceanic crust.	()
7. Unconfined aquifer does not have upper confining layers that retard water movement.	()
8. Water table is the upper boundary of un saturated zone	()
9. The continents appear to drift, because they are part of larger plates that float and move horizontally on the upper mantle asthenosphere.	()
10. The earth's crust consists of a number of moving pieces or plates.	()
11. Convergent boundaries occur; when one plate beneath under the other, it is called subduction.	()
12. The half-life is the time it takes for half of the atoms in a sample to decompose.	()
13. The continents appear to drift, because they are part of larger plates that float and move horizontally on the upper mantle asthenosphere.	()
14. The Richter Scale measures earthquake intensity based on damage.	()
15. The inner core of the Earth is liquid.	()
16. Tsunamis are caused by underwater earthquakes	()
17. Frost wedging is a type of chemical weathering.	()
18. Oxidation is a chemical weathering process involving reaction with oxygen.	()
19. Loam is a soil type low in organic matter.	()
20. The O horizon of soil is mostly Organic material.	()

(III) Define the following with drawing (20 deg.)

- a) Perched Aquifer b) Geophysics
 c) Non Conformity d) Disconformity e) Angular Unconformity
 f) Dissolution g) Erosion h) Liquefaction

اللهم صلي علي محمد عدد ما ذكره الذاكرون
وعدد ما غفل عن ذكره الغافلون