

21. In a syncline, all rock layers
- have horizontal dips.
 - have vertical dips.
 - dip away from the fold axis.
 - dip toward the fold axis.
22. Based on your experience, which of these environments will produce sediments with ripple marks?
- a stream
 - a near shore marine environmental
 - a desert
 - ripple marks may develop in all these environments
23. The process whereby rocks are changed to sediment is called
- metamorphism.
 - weathering.
 - transport.
 - abrasion.
24. Layers in which the grain size changes vertically through the layer is
- not observed in nature.
 - graded bedding.
 - cross-bedded.
 - foliated.
25. Favorable conditions for fossilization are:
- | | |
|-------------------------------------|---|
| a. soft body parts such as tissues. | b. rapid burial. |
| c. lack of oxygen. | d. none of the above (not a or b or c). |

-----GOOD LUCK-----

5. Write on the different types of stream channels.

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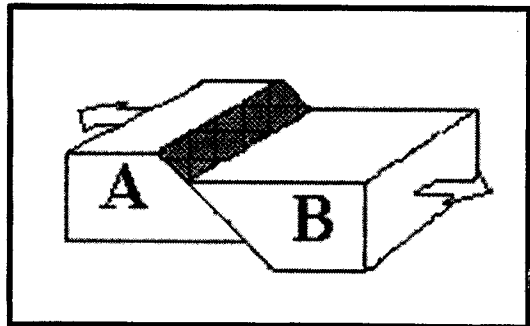
II- Select the best answer (Each One Mark)

6. A surface that separates older metamorphic from younger sedimentary rocks is called
- a. Conformity
 - b. angular unconformity
 - c. Disconformity
 - d. Nonconformity
7. Desert pavement is a.....
- a. highway across the desert
 - b. salty crust in the desert
 - c. layer of coarse rocks and pebbles left behind by deflation
 - d. An alluvial fan
8. Relative age dating is:
- a. the rock's age is determined relative to another rock's age.
 - b. the rock's age is determined by using radioactive isotopes.
 - c. both a and b.
 - d. none of the above.

9. On the cartoon, block "A" is called
- a. footwall block
 - b. hanging wall block
 - c. normal block
 - d. reverse block
 - e. all of the above

10. On the cartoon, block "B" is called
- a. footwall block
 - b. hanging wall block
 - c. normal block
 - d. reverse block
 - e. all of the above

9, 10 & 11



11. What type of stress is represented in this fault-block model?
- a. tensional
 - b. compressional
 - c. lateral
 - d. lithostatic
 - e. none of the above

III-Rocks

15-Extrusive rocks are formed from:

a-Magma cooling inside the earth b-Lava cooling outside on the earth's surface.

16-The mineral composition of gabbros is plagioclase and pyroxene ?

a-True b-False

17-The major difference between breccias and conglomerate is:

a- size of grain b- composition of grain c- rounding of the grain

18- A Sedimentary rock made of CaCO₃ composition is:-

a-Coal b-quartzite c-limestone

19- Which is a foliated metamorphic rock ?

a hornfels b- marble c- quartzite d- slate

Chose the correct answers:

20-The most prominent geologic features at convergent boundaries are.....

a-subduction zones b-high mountains c- trenches
d-new oceanic crust e- deep earthquakes f- volcanic arcs

21-The lithosphere is the..... in the Earth

a- uppermost mantle and crust b- heat content of magma intrusion
c- hot, plastic deformed shells d- convecting shell
e- hottest shell f- deepest shell

22- The tetragonal system crystals are characterized by.....

a- long c-axis b- equal a-axis and b-axis c- equal c-axis and b-axis
d-equal c-axis and a-axis e- equal three crystallography axes
f- unequal three crystallography axes

Write short notes on:

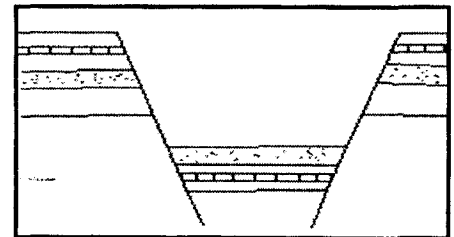
23- basalt

24-Marble

25- Compared between granite and gabbro

12. Is the groundwater/water table flat?
 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
13. The lowering effect on the water table around the base of the well is called
 a- Aquiclude
 b- Artesian surface
 c- Cone of depression
 d- Speleothem
14. A landform that is created by the cutoff of a meander is a (an).....
 a. oxbow lake
 b. natural levee
 c. back swamp
15. A fossil may be:
 a. an impression.
 b. a track of any animal or plant.
 c. a cast.
 d- All of the above (a, b and c).
16. What defines a stream as a young stream?
 a. the size of the stream
 b. the location of the stream
 c. It flows quickly through a steep valley.
 d. the period of time the stream has been there
17. Which of the following rocks has the highest permeability?
 a. An unfractured shale
 b. A cemented sandstone
 c. An uncemented sandstone
 d. All of these rocks have approximately the same permeability

18. This feature (seen in cross-section) is:
 a. an anticline
 b. a graben
 c. a monocline
 d. a syncline



19. Exfoliation is a natural process which results from
 a. activities of man
 b. chemical weathering of rocks
 c. thermal expansion of rocks
 d. organic activities
20. Folding occurs when rocks behave as
 a. Ductile solids.
 b. Frozen solids.
 c. Fluids.
 d. Brittle solids.

Assiut University

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جامعة أسيوط

كلية العلوم - قسم الجيولوجيا

First Level Examination in Fundamentals of Geology (G100)

Time: One Hours

PART I (Total Marks 25)

Jan., 2017

Answer the following questions: (Each One Mark)

Choose the correct answer of the following:

I-Plate tectonics

1-The earth's crustal plates move

a-A few meters per year

b-a few millimeters per 1000 years

c-a few centimeters per year

d- a few millimeters a day

2-The composition of continental crust:

a-is granitic composition

b-is basaltic composition

3-Average thickness of oceanic crust is

a-5 km

b-7 km

c-35 km

d-100 km

4-Average density of core is

a- 11 g/cm³

b- 10 g/cm³

c- 9 g/cm³

5-- Volcanic island arcs are associated with

a- transform boundaries

b-divergent boundaries

c- convergent boundaries

6- What type of plate boundary has the two plates moving away from each other?

a-Divergent plate boundaries

b-Convergent plate boundaries

c-Transform-fault plate boundaries

d- All of the above

7-Wegener's evidence of continental drift:

a- Matching of animal and plant fossils

b-fit of continental coastlines

c- Identical rock types of same age

d- All of the above.

8- The type of plate boundary to have Earthquakes:

a-subduction

b- spreading center

c-transform fault

c-all of the above

II-Crystallography and mineralogy

Indicate by the sign (✓) or (×):-

9- The Hexagonal system (a = b = c) ($\alpha = \beta = \gamma = 90^\circ$)

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10- The Triclinic System (a ≠ b ≠ c) ($\alpha \neq \beta \neq \gamma = 90^\circ$)

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11- The Cubic System (a = b = c) ($\alpha = \beta = \gamma = 90^\circ$)

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12- Minerals can be in a gas or liquid state

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13- Glass is minerals

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14- On Mohs hardness scale, talc has 1

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First Level Examination in Fundamentals of Geology (G100)

Time: One Hours

PART II (Total Marks 25)

Jan.-2017

Prof. Dr. Mostafa M. Youssef

Prof. Dr. Ahmed- Reda M. El Younsy

Dr. Mahmoud Essa

I- Answer the following questions: (Each One Mark)

1. Write on the difference between Joints and Faults. Give examples.

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2. What is the difference between weathering and erosion?

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3. What is meant by the Index Fossils?

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4. What is the difference between porosity and permeability?

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