

Assiut University

Faculty of Science-Geology Dept



جامعة أسيوط

كلية العلوم - قسم الجيولوجيا

Ju.2024

(Total Marks: 25)

G100

Time: One Hour

Answer the following questions: (Each One Mark)

Choose the correct answer of the following:

1- The Hexagonal system

a- $(a = b = c)$ ($\alpha = \beta = \gamma = 90^\circ$)

b- $(a_1 = a_2 = a_3 \neq c)$ ($\alpha = \beta = \gamma = 120^\circ$)

c- $(a \neq b \neq c)$ ($\alpha \neq \beta \neq \gamma = 90^\circ$)

2- The Triclinic System

a- $(a \neq b \neq c)$ ($\alpha \neq \beta \neq \gamma = 90^\circ$)

b- $(a = b = c)$ ($\alpha = \beta = \gamma = 90^\circ$)

c- $(a \neq b \neq c)$ ($\alpha \neq \beta \neq \gamma \neq 90^\circ$)

3- The Monoclinic System

a- $(a \neq b \neq c)$ ($\alpha = \gamma \neq \beta = 90^\circ$)

b- $(a = b = c)$ ($\alpha = \beta = \gamma = 90^\circ$)

c- $(a = b \neq c)$ ($\alpha = \beta = \gamma \neq 90^\circ$)

4-Coal is

a-a clastic sedimentary rock

b-an evaporite

c-none of the above

5-What holds a sedimentary rock together?

a-cement

b-fossils

c-water in its pore spaces

6-The clastic sedimentary rocks are classified primarily on the basis of:

a-color

b- grain size

c- composition

7- Deposits of clay become consolidated to form:

a-limestone

b-sandstone

c-shale

8-Gneiss:

a-shows dark and light bands of minerals

b- has recrystallized at low temperatures

c- has good rock cleavage parallel to banding

9-What is the correct metamorphic sequence of increasingly coarser grain size?

a- phyllite \rightarrow slate \rightarrow gneiss \rightarrow schist

b- slate \rightarrow phyllite \rightarrow schist \rightarrow gneiss

c- gneiss \rightarrow phyllite \rightarrow slate \rightarrow schist

10-Which is not a common volcanic rock?

a-andesite

b-basalt

c-gabbro

11- Granites and rhyolites are related by:

- a-their grain size b- their mode of emplacement
c- their mineralogical composition

12-An igneous rock with large crystals in a fine-grained matrix.

- a-vesicular b-glass c-porphyry

13-What are the two major kinds of igneous rocks:

- a-volcanic and plutonic b-sills and lava c-dikes and batholiths

14-Which of the following pairs of igneous rocks have the same mineral composition?

- a-granite-tuff b-basalt-gabbro c-andesite-rhyolite

15- Zones where subduction occurs are characteristically marked by:

- a- island arcs b-deep trenches c- all of the previous

16-At a mid-ocean ridge, you would expect to find:

- a- very ancient rocks b- very thick accumulations of sediment
c- relatively young rocks

17- Plates:

- a-are the same thickness everywhere b-vary in thickness c- all of the previous

18-Along what type of plate boundary does subduction occur?

- a- divergent b- transform c- convergent

19- The man who is credited with developing the continental drift hypothesis is:

- a-Wilson b-Wegener c- Hess

20-Mid-oceanic ridges are, examples of what type of boundary?

- a- divergent b- convergent c-transform

21-Which property is related to planes of weakness between atoms in a mineral?

- a- hardness b- Density c- Cleavage

22-Volcanic rocks can usually be distinguished from plutonic rocks by:

- a-color b-the size of their mineral grains c-composition

23-Volcanoes are least likely to be associated with:

- a-subduction zones b- transform faults c- mid-ocean ridges

24- The composition of oceanic crust:

- a- is granitic composition b- is basaltic composition
c- is peridotitic composition

25- The average thickness of mantle is:

- a- 2500 km b- 1900 km c- 2900 km



Final Exam of fundamental Geology (G100)
For 1st year students- Faculty of Science - 2023-2024
Part II (External Processes) - Total marks: 25 marks

Answer only 3 from the following:

أجب في كراسة الإجابة

Question 1- Explain with drawing only

وضح بالرسم فقط

- A- A right-lateral (dextral) Strike Slip fault
- B- A recumbent fold
- C- An unconfined aquifer
- D- A sand dune with its parts

Question 2- Just Mention:-

- A- The causes of Physical weathering
- B- The characteristics of Deserts?
- C- The relative dating principles?
- D- The characterization of A river in its Young stage

Question 3-

- A- Compare between Porosity and Permeability?
- B- Compare between Gastroliths and Coprolites

C- The attached figure shows the geological development over time for geological units A, B, C, D, and E

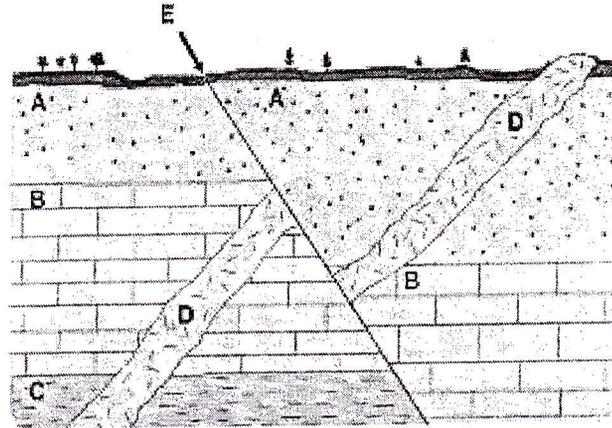
Arrange the various geological events that these units went through?

الشكل المرفق يوضح التطور الجيولوجي مع الزمن

للوحدات الجيولوجية A, B, C, D, E

رتب الأحداث الجيولوجية المختلفة التي مرت بها

هذه الوحدات؟



Question 4- Write on:-

- A- The effect of Compressive and tensional stress and strain on the Earth's Crust
- B- The chemical formula of the following minerals : Gypsum – Sphalerite – Biotite (الميكالسوداء) – Barite – Magnetite - Halite.
- C- The Formation of desert pavement