



Part One (Internal Processes)

I. Complete the following: (7 marks)

- a. The moving of earth crustal plates few centimeters per year is due to
- b. In the mantle, the mantle convection cell feature is caused as a result of
- c. The composition of the earth crust is
- d. The oceanic crust is higher in relative to continental crust
- e. Divergent plate boundary caused when the two plates moves from each other
- f. The type of boundary along which plates slide past each other is
- g. Where a divergent boundary forms under the ocean it is called a.....

II. Sign the true statements by (✓) and the false one by (X) (7 marks)

- a. The hardness in graphite and diamond are depend on chemical composition
- b. Planes of weakness due to atomic bonds is named fractures
- c. Minerals are a homogeneous substances
- d. Six-fold and 2-fold symmetry axes are common in the hexagonal system.
- e. Crystals containing a combination of 4-fold, and 2-fold symmetry axes can only occur in the isometric crystal system
- f. Triclinic crystals have perpendicular axes of unequal length
- g. Natural glaciers is mineral, while water is not mineral

III. Choose the correct answer of the following : (5 marks)

- a. Extrusive rocks are formed from
 1. Magma cooling inside the earth
 2. Lava cooling on the earth's surface
- b. gabbro is

1. Intermediate 2. Acidic 3. Basaic
- c. clastic sedimentary rocks are classified based on
1. Color 2. Density 3. Grain size
- d. In regional metamorphism, the agents of metamorphism are
1. pressure 2. Temperature 3. Both
- e. Marble is a result of
1. regional 2. Dynamic 3. Contact metamorphism

IV. Answer the following questions: (6 marks)

1. Mention why cubic crystal system has the highest degree of symmetry, while triclinic system has the lowest degree of symmetry?
2. What is happen at the boundary, when collision caused between
 - a) oceanic – continental crusts and
 - b) continental – continental crust
3. Write the differences and similarities between granite and rhyolite rocks.



Final Exam of fundamental Geology (100G)
For 1st year students - June, 2 - 2019

Group No

Part II

Time: 1H (one hour)

Total marks: 25

الامتحان في أربع صفحات

Write your answers in the same sheets

أكتب أجابتيك في نفس ورق الأسئلة

Part I: Select or write the correct answer for the following (15 Marks)

1-From primary structures are

- Rocks bent by crustal deformation into a series of wave-like undulations
- fractures in rocks with no movement produced by brittle strain
- a group of wave-like depositional structures that may form directly in water or in air

2-Sheet joints are formed in

- Granite
- Basalt
- Both of them

3-Upwarped circular structure in which the oldest rocks occur in its center is called

- Basin
- Anticline
- Dome
- Monocline

4- When carbonate laden water reaches the air of a limestone cave, it loses some of its dissolved CO₂ and calcite precipitates to form limestone deposits called

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- loess
 - Silica
 - travertine (Stalactite & Stalagmite)
 - Marble

5-The eroded surface occurs between igneous or metamorphic rocks and a series of sedimentary layers is called

6- The group of processes responsible for the disintegration and decomposition of rock in place are called:

- Physical weathering
- Chemical weathering
- Weathering
- Erosion

7-The slow gradual movement of material down slope— easily observed when you see a tree with a trunk “bent” at its base is called

8-Acidic groundwater – carbonic & sulfuric acid in groundwater produce caves, caverns, & sink holes in

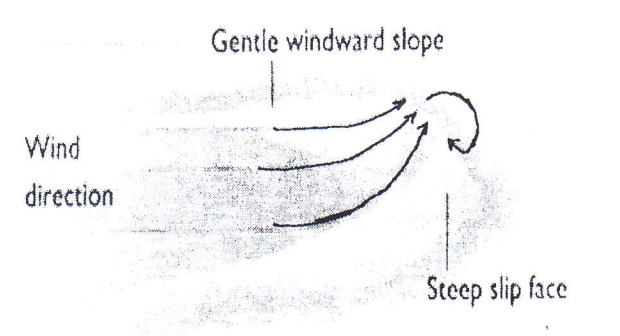
- Granitic rocks
- Mudstones
- Limestones

9- Which one of the following is NOT built by waves depositing sediments (wave deposition)?

- a. A spit b. A barrier island c. A beach sand d. An arch

10- Which of the following are Not Typical of wind erosion?

- a. Alluvial fan b. Deflation c. Blowout d. Ventifact

<p>11- Mention the type of this sand dune</p>	 <p>The diagram illustrates a sand dune with wind blowing from the left. The windward side is labeled 'Gentle windward slope' and the leeward side is labeled 'Steep slip face'. Arrows indicate the 'Wind direction'.</p>
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12- Wind abrasion can cause polish rock and shape individual stones on the desert floor to develop several polished faces. These polished rocks are called:

- a. Yardangs b. blowouts c. desert pavements d. ventifacts

13- Just mention the different types of stream channels.

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14- The boundary between the saturated zone and the unsaturated zone is called, the:

- a. Discharge b. Aquiclude c. Water table d. Ventifact

15- The lowering effect on the water table about the base of the well stem is called:

- a. Aquifer b. Perched water table
c. Cone of depression d. Hydraulic gradient

16- Which value means that the stream gradient is more steep

- a. stream gradient = 1.67m/km b. stream gradient = 5m/km
c. stream gradient = 1m/km

Part II: Answer the followings:

(10 Marks)

17- Just mention the causes of physical weathering

(2 marks)

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18- What are the parts of fold?

(2 marks)

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19- What are the characteristics of an Index fossil?

(2 marks)

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20- Compare between Porosity and Permeability

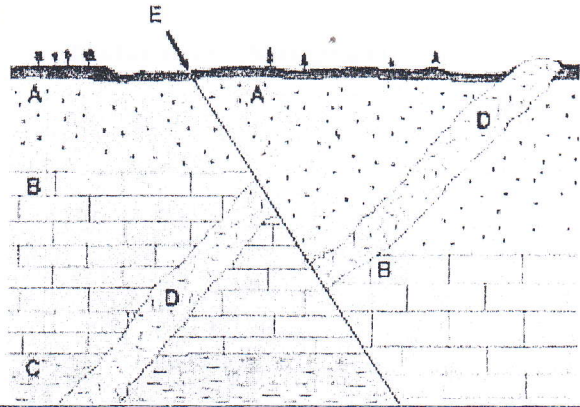
(2 marks)

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21- الشكل المرفق يوضح التطور الجيولوجى مع

الزمن للوحدات الجيولوجية A, B, C, D, E

رتب الأحداث الجيولوجية المختلفة التى مرت بها
هذه الوحدات



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-----GOOD LUCK انتهى الأسئلة-----

Prof.Dr. Mamdouh F. Soliman

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