

المستوى الرابع/ جيولوجيا
المادة: جيولوجيا إقتصادية
ج ٤١٢
الزمن: ساعتان



قسم الجيولوجيا
امتحان الترم الأول
التاريخ ٢٠١٢/١/١٤ م
الدرجة الكلية ٦٠ درجة

اكتب بالتفصيل عن عشر فقرات مما يلي (كل فقرة ست درجات)

- ١- تقسيم العناصر والفلزات.
- ٢- وسائل وعمليات تركيز المعادن.
- ٣- تصنيف الرواسب المعدنية وخاماتها.
- ٤- رواسب الحشو للمحاليل المائية الساخنة.
- ٥- رواسب الاستبدال الميزازوماتي للمحاليل المائية الحارة.
- ٦- النواتج الرئيسية لعمليات التجوية للصخور السطحية.
- ٧- رواسب البوكساييت واللاتيريت.
- ٨- رواسب الكربونات.
- ٩- رواسب المتبخرات.
- ١٠- رواسب الفحم.
- ١١- الرواسب المعدنية لحقب الميزوزوي في مصر.
- ١٢- الرواسب المعدنية للزمن الثالث في مصر.

أ.د. محمود الشربيني؛ د. محمد عبد الرحمن؛ د. علي محمد



Answer the Following Questions

Question One : Tick () or () and correct

- 1- Volcanic eruption causes drop in atmospheric temperature due to P2O5 condensation.
- 2 - Continental glaciers cover more than 50,000 km².
- 3- The glacier starts to move when the snow line is at higher altitude.
- 4- All morains are made up of till deposits.
- 5- Glacial varve is formed of fine and coarse sediments interplay.
- 6- Rock glacier is typical glacial landform.
- 7- The interglacial stage is characterized by mixed oak forest.
- 8- Because of glacial isostasy , earth surface in the proglacial area is rebound after ice thaw.
- 10- Fluvial lakes are quaternary evidences in the mid latitude areas.
- 11- Rock types of the drainage basin determine the nature of deltaic sediments .
- 12- Modern-day deltas, all belong to the same geologic settings.
- 13- Both fluvial and deltaic sediments possess a fining upward sequence.
- 14- In the river dominated deltas, the interdistributary areas are filled with marshes.
- 15- The distributary mouth bar of a delta is middleground when outflow velocity is high.
- 16- The abandoned portion of delta plain is subjected to marine processes .
- 17- The delta progradation is controlled by the gradient of continental shelf.
- 18- Low discharge of river result in accumulation of shell fragments in the lower delta plain.
- 19- The delta plain is characterized by large and continuous sand body.
- 20- The total discharge of Nile is similar to that of Mississippi.

(20 marks)

Question Two: Complete

- 1- The stages of ice formation are.....and.....
- 2- Milankovitch attributed climatic changes to variations in.....and.....
- 3- The terminal part left after glacier retreat is occupied by.....and.....
- 4- Till is.....and.....sediment
- 5- Periglacial area is not buried by glacial ice but subjected to.....
- 6- Landforms related to periglacial environment include....., and.....
- 7- The pollen association of glacial stage include.....and.....
- 8- During glacial stages, sea level is falling due to.....and.....
- 9- The ice cap is always depleted in
- 10- The bases of Quaternary stratigraphy in the Alpine system is.....
- 11- The upper delta plain exist.....
- 12- The drainage basin with tropical climate yields
- 13-.....correlative with deep oceanic wave power
- 14- The long shore current is responsible for.....
- 15- The distributary mouth bar is.....when the.....is dominated.
- 16- The radial mouth bar display
- 17- The near shore wave power is a function of.....
- 18- The tidal channels are filled with.....sand
- 19- The linear mouth bar is a witness of
- 20- Evaporites are widespread in the delta plain with.....

(20 marks)

أقلب الصفحة

Question Three: Choose the correct answer

- 1- Chronostratigraphically Quaternary is a
a-period b-epoch c- stage
- 2- The axial obliquity occurs in the period of
a- 100Ka b- 41Ka c- 22Ka
- 3- The streamland snake-like ridge formed under glacier is
a-eskar b- kam c- drumline
- 4- The annual varve sediments are formed in
a- marine water b- fresh water c- super saline water
- 5- The permafrost is topped by
a- frozen layer b- active layer c-saturated layer
- 6-The pollen grains characteristic to interglacial period include
a- Pinus b- Betula c- Ulmus
- 7- Sea level rise due ice melt water is
a- hydrostasy b- eustasy c- isostasy
- 8 -The shrinkage of pluvial lake indicate that the climate was
a-warm-wet b-cold-dry c-warm-dry
- 9- The Quaternary stratigraphy of north USA is based on
a-till-soil b- terrace-soil c- pollen association
- 10-The peat deposits are widespread during Holocene in the
a- Boreal chronozone b- Sub Atlantic chronozone c- Atlantic chronozone
- 11- When outflow velocity is high and receiving basin slope is low, the produced bar is
a- lunate b- radial c- linear
- 12-In the wave dominated delta the interdistributary bay is filled with
a- dune sand b- evaporites c- marshes
- 13- When water discharge is erratic, the sand body of the alluvial valley is
a- shoestring b- sheet c-lens
- 14- The cross-bedding of the river dominating distributary chanel bar is dipping
a- bidirectinally b- downstream c- upstream
- 15-When the river discharge is too high , it will
a-reduce shelf slope b- reduce buoyancy c- reduce friction
- 16- In the tide dominated delta, the coastline usually occupied by
a- coastal barrier b- lagoons c- estuaries
- 17- The deltaic sand body shows lateral continuity when subsidence of receiving basin is
a- high b-low c- moderate
- 18- When the discharge is high relative to the tide, the delta coast is
a- elongate b- lobate c- cuspsate
- 19- The near shore wave attenuation rate depends on
a- shelf slope b- wind regime c- deep wave power
- 20- The modern Nile delta is now in a
a- stable phase b-constructive phase c- destructive phase

(20 marks)

Good Luck

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Mansoura University
Faculty of Science
Geology Department
Date: 17/1/2012



Fourth Year Exam (January 2012)
Subject: Geology
Course: Basin Analysis (G 404)
Time: 2 hour Full Mark 80

Answer the following questions

The first question: complete the following (30 marks)

- 1-Sequence stratigraphy is an important tool in
- 2-Sedimentary basin analysis is officially defined as of origin.
- 3-Erecting high land in an adjacent area by volcanism can creates a
- 4-A sedimentation itself affects and tectonic affects
- 5-Backstripping is known as computational techniques has been recently developed to the deposition in sedimentary basin.
- 6-You can reconstruct the configuration of the basin through time by informing with and
- 7-From cross-stratified deposits, seeing and is by far the most reliable way of obtaining a paleocurrent direction.
- 8-Intermontane basins of small and deep characters are created by, but can produce small pull-apart basins.
- 9-The important effects of tectonic on sedimentation include,, and
- 10- is needed to make sedimentary basins, but the record of the basin itself is
- 11-..... is a basin in which thick sedimentary and volcanic rocks accumulated.

The second question: write briefly on (20 marks)

- 1-Master cross sections and stratigraphic cross sections through the sedimentary basins.
- 2-Sole marks.
- 3-Flexural regional basins and thermally regional basins.

The third question: changes these sentences to correct forms (15 marks)

- 1-Isopach maps are Lithofacies maps.
- 2-Any sedimentary basin is a place on the earth with closed contour.
- 3-The most important control on sedimentation is climate.
- 4-Paleocurrent directions can't help establish paleoslope and source of sediment supply to the basin.
- 5-Forland basins are formed ahead of large thrust sheets that move out from orogenic areas onto previously undeformed cratonic lithosphere.
- 6-Areas above the equilibrium profile tend to be eroded but that below the equilibrium profile tend to have deposition.
- 7-Eustasy depends on the volume of ocean basins, continental distributions, average age of oceanic crust and the amount of sediment deposition in ocean basins.

The fourth question: put short expressions for the following (15 marks)

- 1-The basins have no apparent connection with plate tectonics and they are thought to reflect very slow thermal subsidence (for times of the order of a hundred million years).
- 2-It is a brief interruption in sedimentation, with little or no erosion before sedimentation resumes.
- 3- It is of long, narrow, linear; tens of kilometers wide, up to a few thousand kilometers long and shows coarse to fine siliciclastics, usually nonmarine; often lacustrine sediments; interbedded basalts.
- 4-They are consist of coarse siliciclastics alluvial fans, molasse facies and thick nonmarine conglomerates thinning and fining away from the arc, often passing into shallow-marine sandstone-shale successions if sea level is high enough to flood the basin.
- 5-It is the area available for sediment to be deposited, usually the space between the sedimentary surface and sea level and to a first order approximation, it depends on global sea level, subsidence, and sediment supply.

**With best wishes
Prof. Adel Genedi**

لجنة الإمتحان والتصحيح*:

أ.د. عادل محمد جنيدى* - أ.د. آدم الشحات - د. أحمد شلبي - د. على عماشه



**B. SC. EXAM IN GEOMORPHOLOGY AND HYDROGEOLOGY OF EGYPT
(G402) - THE FOURTH PROGRAM (GEOLOGY)**

QUESTION ONE: Fill-in the spaces (27 Mark)

1. in the central Sinai, extends E-W, plays a major role in the water flow.
2. and aquifers are exposed on the surface in many localities in Sinai especially in on the floor of Wadi El Arish.
3. The foot slope of El-Tih plateau is composed of thick, while El-Igma is covered with
4. Gulf of Aqaba coastal plain develops three alluvial fans;, and fans.
5. The Quaternary aquifer in the east Nile Delta has lower salinity values in the north and west directions attributed to and of the Nile Delta, whereas the maximum values were located in the south along due to the and
6. The use of relatively high salinity water (>3000ppm) for livestock and poultry purposes may cause or Also, it often causes, and
7. The 10th of Ramadan City rests on the, which represents the most important groundwater aquifer in the Nile Delta.
8. Cairo-Gebel Shabrawit structural ridges represented by five subparallel structural ridges, alternating with two negative structural depressions exist, and depressions.
9., the largest lake of Egyptian coastal belt, extends NW-SE, has wide spread sabkhas and salty ponds around the lake.
10. The Pliocene aquifer in the west Nile Delta is of moderately potential, restricted to area.
11. The Maryut tableland includes two ridges and two depressions;, ridge, depression, depression.



QUESTION TWO: Write short notes on each of the following (answer six points only; 18 Mark)

1. The west Nile Delta southern tableland.
2. Wadi El Tumilat depression.
3. The status of Quaternary aquifer throughout the east Nile Delta.
4. The health effect of lead.
5. Sinai Peninsula highly mountainous basement complex unit.
6. Syrian Arc System.
7. The west Nile Delta Pleistocene aquifer.
8. Sinai drainage basins unit.
9. Kurkar aquifer.

QUESTION THREE: Mark true or false (make further illustration if applicable) for the following statements (answer five points only; 15 Mark)

1. The Pre-Cenomanian Nubian sandstone aquifer is exposed on the cliff of El-Igma Plateau.
2. Salinity varied around Raqabet El-Naam fault due to the different dilution regime.
3. Gulf of Suez coastal plain has bajada plains at El Qaa plain, Delta of Feiran and Delta of Sudr.
4. The beach of the Gulf of Suez is wider than that of the Gulf of Aqaba because the Suez Gulf is shallower than Gulf of Aqaba.
5. El Khanka sand dunes extend in a NE-SW direction in a series of elongate sand ridges.
6. The Miocene Mit Ghamr aquifer in the west Nile Delta is a very highly potential.

Good luck

Dr. Waleed Shukry El Diasty