Mansoura University
Faculty of Science
Geology Department
Date: 19 /06/2012

كلية العلوم
جامعة المنصورة

Second Term Exam
Program Geology
Subject: G 413
Time: 2 hours

(May 2012)
Fourth level
Tectonics of Egypt
Full Mark: 60

Answer the following questions **20 Marks for each**

Question 1

a. Write on the D3 deformation and related structures in the Eastern Desert of Egypt. *(7 Marks)*

b. Write short notes on the Pan-African Sutures within the Afro-Arabian Shield. *(6 Marks)*

c. Explain the structural setting of the Gulf of Suez rift. *(7 Marks)*

Question 2 **Write on the following**

a. The structural setting of the Sibai dome. *(6 Marks)*

b. The tectonics evolution of molasse basins in the Eastern Desert of Egypt. *(7 Marks)*

c. The major tectonic events that control the structural setting of the Northern part of the Western Desert of Egypt. *(7 Marks)*

Question 3

a. Write on the criteria northward tectonic escape within the Afro-Arabian Shield. *(5 Marks)*

b. Write on the activity of the Najd fault system in the Arabo-Nubian shield. *(5 Marks)*

c. Complete the following:- *(10 Marks)*

- Three Pan African deformational events are recognized, these are …1.. , …2.. and …3…
- The Hafafit domes are dextrally dislocated relative to the Sibai dome along …4.. and …5.. shears.
- The fan structure is delineated by …6.. of transpressive nature and …7… of thrust nature.
- The Kareim molasse basin juxtaposes the Sibai core complex along …8…
- Two conjugate shear zones are related to ENE primary stress, these are …9… and …10…

لجنة الممتحنين:

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المستوى الرابع جيوفيزياء - جيولوجيا البترول ومصر ج ٤١٠
جيولوجيا

Mansoura University
Faulty of Science
Department of Geology

Date: 12 June2012
Final semester – Academic year 2011/2012
4th Program Geology
Full Marks: 60 marks
Time allowed: 2 hrs

Final Exam in Petroleum Geology of Egypt (G410)

Answer the following questions

Q1. Write on the petroleum geology of the Gulf of Suez giving an example and determine the differences between Kareem and Belaium crudes. **(20 Mark)**

Q2. Compare between the geologic events of both the Gulf of Suez and the North Western Desert during the Cretaceous Period. **(20 Mark)**

Q3. Complete the following: **(20 Mark)**

a. A Petroliferous province is defined as ..... and the provinces of Egypt are.....
b. Miocene in the Gulf of Suez could be differentiated into two groups known as ..... and ....., the formations of the first are ..... , ... and..... and those of the second are ..... , ... and .....
c. All folding through_out the Gulf of Suez has been produced either by ..... or by .....
d. The stratigraphy of the Gulf of Suez could be differentiated into .... the first is ..... from ..... to ..... and important as ..... the second phase is the ..... and important for.....
e. During the Permian and Triassic periods almost the whole Western Desert remained as a ..... except for a few tracts equpied by .....
f. In the Western Desert the Upper Cretaceous transgression started in the ..... from the north and spread as ..... . It represents the ..... Known in the geologic history of .....

All the best

لجنة الامتحان والتصحيح:
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Mansoura University
Faculty of Science
Geology Department
Date 05/06/2012

Final-Term Exam. (May 2012)
Fourth Level (Geology)
Subject: G409
Course: Stratigraphy of Egypt طبقات مصر
Time: 2 hours Full Mark: 60

G409: STRATIGRAPHY OF EGYPT

Answer the following questions: (20 marks for each question)

1. a. Sum up a composite stratigraphic succession in the Kharga Oasis area, and describe in detail the Dakhla Shale. (10 marks)
   b. Give an account on the Neogene-Quaternary subsurface succession in the Nile Delta area.and refer to its economic importance (10 marks)

2. a. Arrange the following rock units from older to younger; mention the age and dominant lithology of each. (12 marks)
   - The Malha Formation - The Aheimer Formation - The Mokattam Group
   - The Siwa Group - The Ras Malaab Group - The Sudr Chalk
   - The Wata Formation - The Masajid Formation.

   b. Mark right (√) or wrong (X) and correct the false words. (8 marks)
   1. The Bahariya Formation is Cenomanian in age and is widely distributed in the Gulf of Suez region.
   2. Oolitic limestone ridges are well developed along the northwestern coastal plain of Egypt and are of Cretaceous age.
   3. The phosphate deposits are well developed in central Egypt and are named the Khoman Chalk.
   4. The Burg El Arab Formation is Early Carboniferous in age and is subdivided into four members of which two at least are payzones for oil and gas.
   5. The Pliocene succession exposed along the Red Sea Coast includes the Gabir Formation and the Ras Malaab Group.
   6. The Miocene outcrops in the north Western Desert includes the Moghra and Risan Aneiza formations.
   7. The Matulla Formation is well developed in the Sinai and is Aptian-Albian in age.
   8. The Upper Cretaceous Quseir Variegated Shale is well developed in central Egypt underlying the phosohate deposits.

3. a. Compare between the Jurassic succession in Northern Sinai and in the subsurface of the north Western Desert.(10 marks)
   b. Complete the following sentences. (10 marks; one for each space)
   1. The ---------- Formation is mainly Turonian in age and is subdivided by oil companies working in the Western Desert into 7 members.
   2. The ---------- Shale ranges in age between the Paleocene and the Eocene, underlying the ---------- Formation and its type locality is Gabal Awaina in the Nile Valley
   3. The Raised Beaches and Coral Reefs are extensively developed along the ---------- Coast and are of ---------- age.
   4. The ---------- Formation is Permo-Triassic in age, composed of a ---------- succession and is widely distributed in the Gulf of Suez Region.
   5. The Qatrani Formation is ---------- in age and is widely distributed in the ---------- Province.
   6. In Egypt, Triassic deposits are known from Gabal ---------- in NE Sinai.

Best Wishes

لجنة الإمتحان والتصحيح*:

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المستوى الرابع - جيولوجيا - رواسب الخامات وجيولوجيا اشعاعية (ج ٤٠٣)

Mansoura University
Faculty of Science
Geology Department

Final Theoretical Exam
2nd Term 2011/2012

Date: ٢٦/ 06 / 2012
Time Allowed: Two Hours
Full Mark: 60 Marks

نظام :-- الساعات المعتمدة الفرقة :-- المستوي الرابع برنامج :-- الجيولوجيا

الورقة الامتحانية :-- ج ٤٠٣ المقرر:-- رواسب الخامات وجيولوجيا اشعاعية

Ore Deposits & Radioactive Geology

Answer Three Questions from the Followings:-

(20 Marks for each question - 5 Marks for each part)

1- Answer the followings :--
   - A- What are the properties of radioactive minerals.
   - B- Describe method of air-borne radioactive prospection.
   - C- Classify the radioactive minerals.
   - D- Mention types of radioactive ore deposits.

2- Write briefly on the followings:--
   - A- Geochemistry of uranium.
   - B- Origin of radioactive ore deposits.
   - C- Ages and occurrences of radioactive ore deposits in Egypt.
   - D- Uses and applications of radioactive minerals .

3- Describe in detail the followings :--
   - A- Reflectance, Bireflectance & Internal Reflection.
   - B- Scratch Hardness.
   - C- Method of measuring Vickers Hardness.
   - D- Shapes of hardness microindentations.

4- Write short notes on the followings :--
   - A- Factors affecting the microindentation hardness.
   - B- Textures formed from melts.
   - C- Textures formed from open space deposition.
   - D- Replacement textures.

GOOD LUCK & BEST WISHES

لجنة التصحيح :- أ.د. محروس أبو العنين – أ.د. عادل جنيدي – أ.د. أدم الشحات -- د.شعبان مشعل*

المستوى الرابع - جيولوجيا - بيئية وجيولوجيا الآثار ج ٤٠١

جامعة المنصورة
كلية العلوم
قسم الجيولوجيا
الزمن: ساعتان

إمتحان نهائى (دور مايو ٢٠١٢)
المستوى: الرابع برنامج: الجيولوجيا
المادة: جيولوجيا بيئية وجيولوجيا الآثار
الورقة الإمتحانية: ج ٤٠١
الدرجة الكلية: 60 درجة
تاريخ الإمتحان ٣٠ / ٦ / ٢٠١٢

أولا: جيولوجيا بيئية

أجب عن الأسئلة الآتية:

السؤال الأول : اكمل الجمل التالية **مع وضع خط تحت الإجابة**:- **(٢٠ درجة)**

١. تحترق الشهب عندما تدخل طبقة ..... بينما يوجد الأوزون فى طبقة .....
٢. ..... ، ..... هما من نواتج الدورة الجيولوجية .
٣. تتكون ..... عندما تتقابل الأنهار بالبحار بينما تتكون ..... عندما تنحدر مياة الأنهار فجأة.
٤. تتكون ..... عندما تصدم الألواح مع بعضها بينما تتكون ..... عندما تبعد الألواح عن بعضها.
٥. تنشأ ..... نتيجة إستهلاك جزء من القشرة الأرضية داخل .....
٦. ..... هو السبب الرئيسى للتغيرات المناخية بينما ..... هو السبب الرئيسى لتآكل الأوزون.
٧. الأشعة الضارة القادمة من الشمس تشمل كل من ..... ، .....
٨. يتكون الوشاح من صخر ..... بينما يتكون قاع المحيط من صخر .....
٩. ..... ، ..... هما من المخاطر الجيولوجية المدمرة للبيئة.
١٠. يتكون الغلاف الهوائى للكواكب البعيدة عن الشمس من غاز ..... بينما القريبة من غاز .....

السؤال الثانى: (A) أذكر السبب عن الآتى:- **(١٠ درجات)**

١. ظهور مشكلة التلوث البيئى .
٢. أهمية الغلاف الهوائى للأرض.
٣. الأرض هى الموطن المناسب والوحيد للإنسان .
٤. تكون المواد الأرضيةعلى سطح الأرض .
٥. ظاهرة الإحتباس الحرارى وأثرها على كوكب الأرض .

Geoarchaeology

Question Two (B): Tick (✓) or (X) and correct. **(10 Degrees)**

1. Phosphate analysis can give important measures on the intensity of human occupation.

2. Humus and shell material in archaeological sites can be dated using optical luminescence techniques.

3. Heavy minerals can be used to determine the firing temperature of pottery fragments.

4. Electrical resistivity techniques are more suitable to detect archaeological remains such as hearths, kilns and burnet areas.

5. In trenching, archaeological samples are taken from the top downwards to avoid mixing of samples

Question Three: Complete: **(20 Degrees)**

1. Active geophysical techniques applied in archaeology include ..... and .....

2. Metamorphic rocks of archaeological interest in ancient Egypt include ....and .....

3. In Predynastic times ..... and ..... were used for making tools.

4. Arhcaeological sediments are less preserved in open air sites compared with ..... and ..... .

5. The obelisk of Queen Hatshepsut in Karnak temple is made of ..... derived from the quarries at .....

6. ..... represent the main building stone employed in Giza Pyramids during ..... Kingdom.

7. ..... and ..... represent the main building stones in ancient Egypt.

8. Jem varieties of quartz include..... and .....

9. In ancient Egypt turquoise was obtained from ..... and used as .....

10. Some parts of the Sphinx are badly affected by ..... weathering due to ..... groundwater.

مع أطيب التمنيات بالنجاح ،،،،،،،،

لجنة الإمتحان والتصحيح*:

أ.د. أدم الشحات* أ.د. أمين غيث* أ.د. عبدالله شاهين د. محمد عوض