	TANTA UNIVERSITY FACULTY OF SCIENCE DEPARTMENT OF GEOLOGY			
	EXAMINATION FOR LEVEL THREE CHEMISTRY/GEOLOGY SECTION			
	COURSE TITLE:	<b>Tectonic Geology</b>	COURSE GE 3202	
DATE:	JUNE 14, 2014	TERM: SECOND	TOTAL ASSESSMENT MARKS : 100	TIME ALLOWED: 2 HOURS

**Answer the following questions:**

1-**Draw** a diagrammatic cross-section through the Earth showing the different layers and mention the characteristic features of each layer? **(15 marks)**

2- Continental Drift is the key to Plate Tectonic Theory. Explain the theory and evidences of Continental Drift with **drawing**? **(20 marks)**

3- **Discuss** with **drawing** the cases of convergent plate boundaries where subduction occurs? **(15 marks)**

4- **Write** with **drawing** on the following: **(30 marks)**  
 a- Ophiolites.  
 b- Sea-floor spreading.  
 c- East-African Rift.

5- **Explain** with **drawing** the formation of the following tectonic features in the light of the theory of plate tectonics: **(20 marks)**

- a-Oman Mountains.
- b-San Andreas Fault.
- c- Red Sea Rift.
- d-Himalayan Mountains.

Examiners	Prof. Mohamed Atef Noweir	Prof. Mohamed Abdel Wahed
	Prof. Abdelsalam Rashad	Prof. Ibrahim Salem



COURSE TITLE:

SUBSURFACE GEOLOGY

COURSE CODE : GE 3204

DATE:

JUNE, 2014

TERM: SECOND

TOTAL ASSESSMENT MARKS: 100

TIME ALLOWED: 2 HOURS

**Answer the following questions ( Sketch maps and diagrams should be drawn whenever possible ) :**

**1- Complete the followings sentences : ( 20 marks)**

- a) The unconformity can be recognized from ..... and .....
- b) The capacity of fold to hold oil depends on ..... and .....
- c) Structures of the Gulf of Suez are essentially ..... of NNW – SSE trend .
- d) Isolith map shows .....
- e) Subsurface geology deals with ..... and interpreting .....
- f) Tectofacies map shows .....
- g) In construction of cross section, two considerations are important ..... and .....  
Cross sections are divided into two general groups ..... and .....

**2- Write on the Nile Delta basin ? (20 marks)**

**3- Write briefly on the role of geophysical methods as sources of information for subsurface investigation. ( 20 marks)**

**4- Compare between the following : ( 16 marks)**

- a) Percentage map and isopach map.
- b) Structure contour map and sand / shale ratio.


**5- What are the reasons behind the following features ( 24 marks)**

- a) Variation in thickness of a certain stratigraphic unit.
- b) The facies change of a certain stratigraphic sequence.
- c) The development of negative and positive closures as delineated by structure contours.

EXAMINERS

PROF.DR. NADER ELGENDY

DR SHADIA ABDELRAHEEM

	TANTA UNIVERSITY FACULTY OF SCIENCE			
	DEPARTMENT OF GEOLOGY			
	EXAMINATION FOR THIRD LEVEL STUDENTS OF CHEMISTRY-GEOLOGY			
COURSE TITLE:	Final Exam of Geology of Ores		COURSE CODE: GE3212	
DATE:	JUNE. 2014	TERM: SECOND	TOTAL ASSESSMENT MARKS:100	TIME ALLOWED: 2 HOURS

**Part One:** Write briefly on the following, Illustrate your answer with drawing. (50 marks)

- 1- Cavity filling deposits
- 2- Complex pegmatites.
- 3- Relation of contact metasomatism to intrusions and invaded rocks
- 4- Types of wall rock alteration
- 5- Origin of graphite, talc and criteria of replacement.
- 6- Classification of mineral deposits in Egypt according to Hilmy and Hussein, 1978.

**Part Two:** Answer The Following Questions. (50 marks)

- 1) Compared between primary and secondary uranium ore minerals
- 2) Distinguish between depositional methods of the formation of economic mineral deposits in arid and tropical/subtropical environments.
- 3) Different categories of uranium deposits, with special references to sandstone uranium deposits
- 4) Placer minerals and its types
- 5) Different forms and types of bauxite deposit

Examiners:

Prof. Ibrahim Salem

Prof. Hassan Haraz



TANTA UNIVERSITY  
FACULTY OF SCIENCE  
DEPARTMENT OF GEOLOGY

EXAMINATION FOR 4<sup>th</sup> LEVEL STUDENTS ( CHEMISTRY & GEOLOGY )


COURSE TITLE:	<b>PHOTOGEOLOGY</b>	COURSE CODE: GE 4204
DATE:	31/ 05 /2014	TOTAL ASSESSMENT MARKS: 100
		TIME ALLOWED: 2 HOURS

**Write briefly on the following:**

- 1- Characteristics of vertical photographs..... (10 marks)
- 2- Compare between pocket and mirror stereoscopes..... (14 marks)
- 3- Relief displacement and factors affecting it.....(12 marks)
- 4- Advantages of an aerial photographs over a map.....(12 marks)
- 5- Major drainage patterns and their geologic significances.....(15 marks)
- 6- Drainage density, photo-tone and obsequent streams.....(15 marks)
- 7- Photogeologic appearance of intrusive igneous rocks and faults .....(22 marks)

EXAMINERS	Prof. Mahmoud H. Ashmawy
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	TANTA UNIVERSITY FACULTY OF SCIENCE DEPARTMENT OF GEOLOGY			
	EXAMINATION FOR SOPHOMORES (FOURTH YEAR) STUDENTS OF CHEMICAL/ GEOLOGY			
	COURSE TITLE:	PRECAMBRIAN GEOLOGY		COURSE CODE: GE4206
DATE:	JUNE, 2014	TERM: SECOND	TOTAL ASSESSMENT MARKS: 100	TIME ALLOWED: 2 HOURS

1- Discriminate between the following:

- a- Classification of the Precambrian rocks given by El Ramly and Akaad (1960) and Akaad and Noweir (1980)------(20 marks)
- b- Field occurrences of ophiolites and rocks of island arc system------(20 marks)
- c- Geochemistry and Tectonic setting of ophiolites and metagabbros------(20 marks)
- d- Older granites and younger granites------(20 Marks)
- e- Dokhan volcanics and Hammamat sediments------(20 Marks)

Best wishes

Examiner	Prof. Dr. Gaafar El Bahariay
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	TANTA UNIVERSITY			
	FACULTY OF SCIENCE			
	DEPARTMENT OF GEOLOGY			
EXAMINATION FOR FOURTH LEVEL STUDENTS OF CHEMISTRY-GEOLOGY				
COURSE TITLE:	Final Exam of Mining Geology			COURSE CODE: GE4208
DATE:	JUNE. 2014	TERM: SECOND	TOTAL ASSESSMENT MARKS:100	TIME ALLOWED: 2 HOURS

**Part One:** Write briefly on the following, Illustrate your answer with drawing. (50 marks)

- 1) Compared between surface mining method and underground mining method.
- 2) Drawn sketch of solid mineral reserves
- 3) What do you means by:-
  - i) Balance reserve.
  - ii) Room and Pillar.
  - iii) Cut and filling stoping
  - iv) Longwall stoping
  - v) Block caving
- 4) What the differences between
  - i) Mine and Mining.
  - ii) Stope and stoping.
  - iii) Prospecting works and proving works.


**Part Two:** Answer The Following Questions. (50 marks)

- 1) Methods of mine ventilation.
- 2) The material for underground support.
- 3) Main stages of extracted surface ores, blasting caps detonators and dynamites.
- 4) Mine air, storage of explosives and conveyor of mine transport.

Examiners:

Prof. Ibrahim Salem

Prof. Hassan Haraz

	TANTA UNIVERSITY FACULTY OF SCIENCE  DEPARTMENT OF GEOLOGY			
	EXAMINATION FOR SENIORS (FOURTH LEVEL) STUDENTS OF CHEMISTRY-GEOLOGY			
	COURSE TITLE:	Final Exam of Ore Mineralogy .		COURSE CODE: GE4226
DATE:	JUNE. 2014	TERM: SECOND	TOTAL ASSESSMENT MARKS: 100	TIME ALLOWED: 2 HOURS

### Part I: Ore Mineralogy (60 mins)

Write briefly on the following questions; illustrate your answer with drawing: (50 marks)

- 1- Solid solutions in native metals.
- 2- Colloform textures in supergene minerals.
- 3- Hematite-ilmenite, ulvospinel-magnetite and hematite- magnetite exsolution textures.
- 4- Pentlandite-pyrrhotite , chalcopyrite-sphalerite and bornite-chalcocite exsolution textures.
- 5- Core, relict and selective replacement textures.

### Part II: Ore Mineralogy (60 mins)

A) Write on the following; illustrating your answer with drawing: (50 marks)

- 1- Objective lenses.
- 2- Reflectance and anisotropism.
- 3- Microindentation hardness.
- 4- Grinding and polishing equipments.

**Examiners:**

**Prof. Ibrahim Salem**

**Prof. Bothina El-Dsoky**

**With Best Wishes**