	TANTA UNIVERSITY FACULTY OF SCIENCE DEPARTMENT OF GEOLOGY		
	EXAMINATION FOR SOPHOMORES STUDENTS OF SPECIAL GEOLOGY AND GEOPHYSICS		
1969	COURSE TITLE:	LITHOSTRATIGRAPHY	COURSE CODE: GE2208
DATE:	10 JUNE, 2015	TERM: SECOND	TOTAL ASSESSMENT MARKS: 100
			TIME ALLOWED: 2 HOURS

Answer the following questions.

I- Complete the following sentences: (20 marks)

- 1- Lithostratigraphy is
- 2- Flow is
- 3- Formation is
- 4- Lithostratigraphic classification is
- 5- Bed is

II- Discuss in details with drawing the lithostratigraphic units of Miocene sediments in Nile Delta. (20 marks)

III- Compare between the following with drawing: (30 marks)

- a- Geological cross section and stratigraphic cross section.
- b- Structure contour map and isopach map.
- c- Moghra Formation and Samalut Formation.

IV- Write notes about the followings with drawing if possible: (30 marks)

- a- Stratotype and type localities with examples from Egypt.
- b- Criteria used for lithostratigraphic correlation.
- c- Special aspects of igneous and metamorphic rocks.

EXAMINERS	PROF. A. A. ZALAT	PROF. H M KHALIL	<i>WITH BEST REGARDS</i>
	DR. M.S. FATHY		



TANTA UNIVERSITY
FACULTY OF SCIENCE
DEPARTMENT OF GEOLOGY

EXAMINATION FOR SOPHOMORES (SECOND LEVEL) STUDENTS OF SPECIAL GEOLOGY

COURSE TITLE:

Rock forming minerals

COURSE CODE: GE2202

DATE:

6 JUNE, 2015

TERM: SECOND


TOTAL ASSESSMENT MARKS: 100

TIME ALLOWED: 2 HOURS

Write short notes on the followings:-

- 1- $\text{SiO}_2 - \text{MgO}$ phase diagram. (12 marks)
- 2- The alkali amphibole minerals. (12 marks)
- 3- The classification of biotite. (13 marks)
- 4- The varieties of garnet group and the characteristic features for each. (13 marks)
- 5- The leucite – silica phase diagram. (12 marks)
- 6- The classification of orthopyroxene . State the optical differences between any two of them. (13 marks)
- 7- The stability of silica. (12 marks)
- 8- Epidote mineral group and the characteristic optical properties for each. (13 marks)

Examiners	Prof. Samir Mohammed Aly	Prof. Ibrahim Abdel-Nagy
	Prof. Hassan Z. Haraz	Prof. Gaafer El-Baharya

	TANTA UNIVERSITY FACULTY OF SCIENCE DEPARTMENT OF GEOLOGY			
	EXAMINATION FOR SOPHOMORES(LEVEL TWO) STUDENTS (SPECIAL GEOLOGY)			
	COURSE TITLE	IGNEOUS PETROLOGY(1)		COURSE CODE:GE2204
DATE:	JUNE 2015	SEMESTER TWO	TOTAL ASSESSMENT MARKS:100	TIME ALLOWED:2 HOURS

Answer the following questions:

1- Discriminate between the following:

- a- Basic magma and acidic magma----- (8 marks)
- b- Origin of basaltic magma and origin of intermediate magma--- (8 marks)
- c- Fractional partial melting and fractional crystallization----- (8 marks)
- d- Felsic minerals and mafic minerals----- (8 marks)
- e- Liquid immiscibility and crystal-liquid differentiation----- (9 marks)
- f- Assimilation of basic magma to acidic rocks and mixing of basic magma with acidic magma----- (9 marks)

2- Write short notes on the following. Illustrate your answer with diagrams whenever is possible.

- a- Chemical classification of igneous rocks----- (5 marks)
- b- The IUGS classification of plutonic rocks----- (15 marks)
- c- Classification of gabbroic rocks composed of plagioclase, pyroxene and olivine as well as subdivision of gabbroic rocks composed of plagioclase and pyroxene----- (15 marks)
- d- Nomenclature of ultramafic rocks composed of olivine, orthopyroxene and clinopyroxene----- (15 marks)

Best wishes

Examiners: Prof. Abd Elsalam Abu El Ela
Prof. Gaafar El Bahariya



TANTA UNIVERSITY
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DEPARTMENT OF GEOLOGY

EXAMINATION FOR SOPHOMORES STUDENTS
OF
SPECIAL GEOLOGY AND CHEMICAL-GEOLOGY

COURSE TITLE: **APPLIED MINERALOGY** COURSE CODE: GE2214

DATE: 3 / 6 / 2015 JUNE, 2015 TERM: SECOND TOTAL ASSESSMENT MARKS: 100 TIME ALLOWED: 2 HOURS

Write brief on the Following:-

- 1) Advanced ceramics (10 marks)
- 2) Cement minerals and Different types of Portland Cements (20 marks)
- 3) Common types of glass (20 marks)
- 4) Different types of: (20 marks)
 - a) Clay Products
 - b) Refractory Products
- 5) How to obtain: (30 marks)
 - a) Soda Ash
 - b) Zirconia from zircon
 - c) Titania

Prof. Dr. Samir M. Ali

Prof. Dr. Hassan Z. Harraz



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TANTA UNIVERSITY
FACULTY OF SCIENCE
DEPARTMENT OF GEOLOGY

EXAMINATION FOR SOPHOMORES STUDENTS
OF
SPECIAL GEOLOGY AND CHEMICAL-GEOLOGY

COURSE TITLE:	APPLIED MINERALOGY	COURSE CODE: GE2214		
DATE: 3 / 6 / 2015	JUNE, 2015	TERM: SECOND	TOTAL ASSESSMENT MARKS: 100	TIME ALLOWED: 2 HOURS


Write brief on the Following:-

- 1) Advanced ceramics (10 marks)
- 2) Cement minerals and Different types of Portland Cements (20 marks)
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 - a) Clay Products
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- 5) How to obtain: (30 marks)
 - a) Soda Ash
 - b) Zirconia from zircon
 - c) Titania

Prof. Dr. Samir M. Ali

Prof. Dr. Hassan Z. Harraz

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	TANTA UNIVERSITY FACULTY OF SCIENCE DEPARTMENT OF GEOLOGY		
	EXAMINATION FOR (LEVEL 2) SPECIAL GEOLOGY		
COURSE TITLE:	Macropaleontology 1	CODE: GE 2212	
DATE:	JUNE, 2015	SEMESTER: 2	TOTAL MARKS:100 TIME ALLOWED: 2 HOURS

Answer the following questions (Illustrate your answer with drawing):

Question 1: **(25 Marks)**

- a- How the organism become a Fossil and what are the conditions that lead to fossilization?
- b- Explain dissolution/replacement as a type of altered fossil remains, What are the replacement materials.

Question 2: **(25 Marks)**

- a- Draw and briefly describe Belemnites morphology

Question 3: Draw an briefly write about: **(25 Marks)**

- a- External and internal mold
- b- Types of Ammonoidea suture patterns.

Question 4: **(25 Marks)**

a) - Match the number of the term in Column 1 with the letter of the correct definition in Column 2.


1- Belemnites	a- Appeared in Cambrian and still present
2- Ammonites	b- Appeared in L. Cambrian, one genus lives today
3- Bivalvia	c- Appeared in Cambrian and still present
4- Gastropoda	d- Appeared in Devonian and disappeared at the end of the Cretaceous
5- Nautiloidea	e- Appeared in E. Jurassic and disappeared at the end of the Cretaceous

- b) - Complete the following:
- 1- Dentation is the dominant skeletal element in , umbilicus is the dominant skeletal element in and is the dominant skeletal elements in Cephalopoda.
 - 2- The tightness of coiling in Gastropods may be, and
 - 3- Phylum Mollusca includes Class, Class and Class
 - 4- Ligament in Bivalves may be,, and is used to
 - 5- Nautiloids suture patterns include: agoniatic of age and of E. & M. Devonian age..

Best wishes

Examiners	Prof. Dr. H. Khalil	Prof. Dr. M. Sobhy
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جيولوجيا

 -1969	TANTA UNIVERSITY FACULTY OF SCIENCE DEPARTMENT OF GEOLOGY			
	EXAMINATION FOR SOPHOMORES (SECOND YEAR) STUDENTS OF GEOLOGY			
	COURSE TITLE:	GEOGRAPHIC INFORMATION SYSTEM (SPECIAL COURSE-1)		COURSE CODE: GE 2224
DATE:	30 MAY, 2015	TERM: SECOND	TOTAL ASSESSMENT MARKS: 50	TIME ALLOWED: 2 HOURS

Answer the following Questions (using drawing when it possible)

1- Write **SHORT NOTES** on the following:-

- Raster based surface analysis and its applications. (10 marks)
- Spatial data storage and maintenance. (10 marks)
- Map projections. (10 marks)

2- Compare between **TWO ONLY** of the following:-

(15 marks)

- Direct and indirect spatial data capture.
- Equal interval and equal frequency techniques in the automatic classification.
- Overlay and connectivity functions.

3- Complete the following Sentences:-

(5 marks)

- The main characteristics of a GIS software packages are
- Geometric measurements on spatial features includes
- Spatial data can be acquired from centralized repositories such as
- Coordinate systems can be distinguished into two types and
- Metadata is defined as

EXAMINERS	Prof. Alaa A. Masoud	Dr. Samir Z. Kamh
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حرف لوجيا



TANTA UNIVERSITY
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DEPARTMENT OF GEOLOGY

EXAMINATION FOR LEVEL TWO STUDENTS (SPECIAL GEOLOGY) 2224

COURSE TITLE METAMORPHIC PETROLOGY 1 COURSE CODE:GE 2206

DATE: 30/5/ 2015 SEMESTER: TWO TOTAL ASSESSMENT MARKS :100 TIME ALLOWED: 2 hrs.

Answer the following questions. Illustrate your answer whenever possible.

1.Explain WHY 30 marks

- On the basis of texture and mineralogy, you can estimate the type of metamorphism. 6 marks
- Quartzite and marble are rarely foliated. 6 marks
- Almost index metamorphic minerals represent pathfinders of the metamorphic grades. 6 marks
- Features of impact metamorphism and dynamic metamorphism are completely different. 6 marks
- Migmatites are resultant from different rock sources. 6 marks

2. Write a concise article on metamorphic differentiation. 20 marks

3. Write short notes on the following: 50 marks

- Lower and upper limits of metamorphism. 7 marks
- Diagnostic minerals of low and high grade metamorphism. 7 marks
- Facies of regional metamorphism. 10 marks
- Textures of dynamic metamorphism. 7 marks
- Textures of thermal metamorphism. 7 marks
- Regional metamorphism at convergent plate boundaries. 12 marks

Examiners: Prof. Mohamed Th.S. Heikal &

Prof. Gafar El Bahariya

Good Luck!