


مركز لوجيا

TANTA UNIVERSITY
FACULTY OF SCIENCE

DEPARTMENT OF GEOLOGY

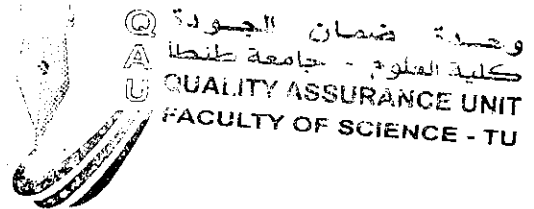
EXAMINATION FOR SECOND LEVEL STUDENTS OF SPECIAL GEOLOGY


	COURSE TITLE:	Final Exam of Gemstones	COURSE CODE: GE2111	
	DATE:	JAN. 2017	TERM: FIRST	TOTAL ASSESSMENT MARKS: 100

Answer the following questions: (60 Marks)

- 1- Write short article on composition, colour, classification and geological record of amber.
- 2- Write short article on physical properties, origin and treatment of turquoise.
- 3- Gem varieties of beryl.
- 4- Physical properties and gem varieties of tourmaline.
- 5- Physical properties and origin of diamond.
- 6- Write briefly on the following: (40 Marks)
 - a- Treatment of gemstones.
 - b- Colour and varieties of topaz.
 - c- Jet and Momme weight of pearl.
 - d- Major varieties of crystalline silica .
 - e- Physical properties of lazurite and enhancement of jade.

Examiner: Prof. Ibrahim Salem



	TANTA UNIVERSITY FACULTY OF SCIENCE DEPARTMENT OF GEOLOGY			
	EXAMINATION FOR (LEVEL 2) SPECIAL GEOLOGY, CHEMISTRY/GEOLOGY AND GEOPHYSICS			
COURSE TITLE:	Principles of Stratigraphy		CODE: GE 2107	
DATE:	JANUARY, 2017	SEMESTER: 1	TOTAL MARKS: 100	TIME ALLOWED: 2 HOURS

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

Question 1:

(20 Marks)

Discus briefly the subsurface stratigraphic procedures.

Question 2:

(20 Marks)

State and explain the law of Faunal Succession and the Inclusion Principle.

Question 3: Write briefly about:

(20 Marks)

- a – Maastrichtian Age.
- b – Angular unconformity.

Question 4: Complete the following:

(20 Marks)

- a- Phanerozoic is subdivided into, and Ears.
- b- Sequence stratigraphy is a branch of stratigraphy that
- c- are the longest divisions of geologic time, while are the smallest ones.
- d- Chronostratigraphy is the branch of stratigraphy that studies the, not the, age of rock strata.
- e- Permian is the latest period of the Era, while is the earliest period of the Mesozoic Era.

Question 5:

(20 Marks)


Match the number of the term or concepts in Column 1 with the letter of the correct definition in Column 2.

1- Precambrian	a- Using fossils to determine age
2- Absolute age	b- Sediments on igneous or metamorphic rocks
3- Uniformitarianism	c- Last occurrence of a species
4- Bed	d- Fining Upwards Sequence
5- Extinction	e- Present is the key to the past
6- Relative dating	f- Based on half lives of radioactive decay
7- Regression	g. Older than 560 million years
8- Transgression	h. Basic unit of stratigraphy
9- Nonconformity	i- Epoch do we live in
10- Holocene	j- More landward facies overlie more basin-ward facies

Best wishes

Examiners	Prof. Dr. H. Khalil	Dr. M. Sobhy
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	TANTA UNIVERSITY FACULTY OF SCIENCE DEPARTMENT OF GEOLOGY		
	EXAMINATION FOR SECOND LEVEL STUDENTS OF GEOLOGY		
1969	COURSE TITLE:	STRUCTURAL MINERALOGY	COURSE CODE: GE 2103
DATE: JANUARY, 2017	TERM: FIRST	TOTAL ASSESSMENT MARKS: 100 MARKS	TIME ALLOWED: 2 HOURS

I. Write short notes on the followings. Illustrate your answers with diagrams whenever possible:

(60 mark)

- a. Calcite structure.
- b. Unit cell of monoclinic system.
- c. The structure of gold.
- d. Cuprite structure.
- e. Two dimensional lattice planes.
- f. Sorosilicate structure.

II Define

(20 mark)

- a. Screw axis
- b. Coordination number
- c. Isomorphism
- d. Electrostatic valency strength
- e. Mesodesmic

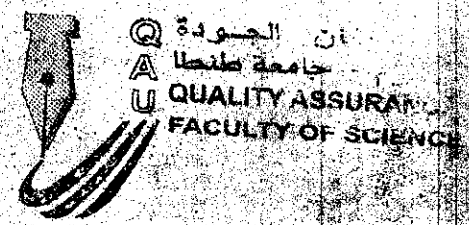
III Complete the followings :


(20 mark)

- a. Two is the number of oxygen shared in
- b. is the smallest possible subdivision which has the properties of the visible macrocrystal.
- c. Ionic minerals are classified into
- d. Types of pseudomorphism are
- e. Si : O ratio in equal 1:2

GOOD LUCK

EXAMINERS	PROF. SAMIR M. ALY	Prof. ABD EL SALAM M. ABU EL ELA
	PROF. GAAFAR A. EL BAHARIYA	PROF. MOHAMED M. ABU ANBAR



	TANTA UNIVERSITY FACULTY OF SCIENCE DEPARTMENT OF GEOLOGY		
	EXAMINATION FOR SECOND LEVEL STUDENTS OF GEOLOGY		
1969	COURSE TITLE:	STRUCTURAL MINERALOGY	COURSE CODE:GE 2103
DATE: JANUARY, 2017	TERM: FIRST	TOTAL ASSESSMENT MARKS:100 MARKS	TIME ALLOWED: 2 HOURS

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- Calcite structure.
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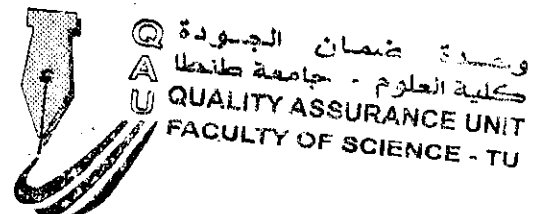
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- Ionic minerals are classified into
- Types of pseudomorphism are
- Si : O ratio in equal 1:2

GOOD LUCK

EXAMINERS	PROF. SAMIR M. ALY	Prof. ABD EI SALAM M. ABU EL ELA
	PROF. GAAFAR A. EL BAHARIYA	PROF. MOHAMED M. ABU ANBAR



	Tanta University		
	Faculty of Science		
	Chemistry Department		
	Examination for Second Year Students of Special Geology Section		
	Course Title	Organic Chemistry	Course Code: CH2145
Date:	January 2017	Total Assessment Marks: 50	Time Allowed: 2 hrs

Answer the following questions:

1) Differentiate between each of the followings: (20 Mark)

1. Action of HCl and O_3 on 1-butene and 2-butene
2. Preparation of alkenes and alkynes using vicinal dihalide
3. Addition of water (H_2O) on ethyne and propyne
4. Structural and functional isomerism
5. The reaction of Grignard reagent with water and aldehydes & ketones

2) Write the mechanism of: (15 Mark)

1. Action of Chlorine (Cl_2) on methane
2. Nitration and Acylation of benzene
3. Addition of HCl on propene in the presence and in the absence of H_2O_2

3) Discuss the followings: (15 Mark)


1. Functional groups
2. Wurtz coupling reaction
3. Transference of 2° or 3° alcohols to 1° alcohols
4. ortho, meta, and para directing groups

With best wishes

EXAMINER	Prof. Dr. Adel selim	Dr. Mohamed Azaam
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 1988	TANTA UNIVERSITY FACULTY OF SCIENCE DEPARTMENT OF GEOLOGY			
	EXAMINATION FOR SOPHOMORES (SECOND YEAR) STUDENTS OF GEOLOGY			
COURSE TITLE:	CRYSTALLOGRAPHY	COURSE CODE: GE 2101		
DATE:	24 JAN. 2017	FIRST SEMESTER	TOTAL ASSESSMENT MARKS: 100	TIME ALLOWED: 2 HRS

Answer the following questions:-

1- What are the characteristic features of the following systems:- (30 marks)

- Cubic system.
- Orthorhombic system.
- Hexagonal system.
- Tetragonal system.
- Monoclinic system.

2- Classify the following crystallographic forms illustrating your answer with both clinographic and stereographic projections:- (40 marks)

- Octahedron.
- Hexagonal prism 1st order.
- (A) dome.
- Tetragonal bipyramid 2nd order.


3- Plot the stereographic projection for the following parameter faces:- (30 marks)

- | | |
|-------------------|-------------------|
| a. $(10\bar{1})$ | b. (011) |
| c. $(11\bar{1})$ | d. (110) |
| e. $(22\bar{1}0)$ | f. $(13\bar{2}0)$ |

Best Wishes

James F. Ghoneim

Prof. Bothina T. El-Dosuky

	Tanta University Faculty of Science Chemistry Department		
	Examination for Second Year Students of Special Geology Section		
	Course Title	Organic Chemistry	Course Code: CH2145
Date:	January 2017	Total Assessment Marks: 50	Time Allowed: 2 hrs

Answer the following questions:

1) Differentiate between each of the followings: (20 Mark)

1. Action of HCl and O₃ on 1-butene and 2-butene
2. Preparation of alkenes and alkynes using vicinal dihalide
3. Addition of water (H₂O) on ethyne and propyne
4. Structural and functional isomerism
5. The reaction of Grignard reagent with water and aldehydes & ketones

2) Write the mechanism of: (15 Mark)

1. Action of Chlorine (Cl₂) on methane
2. Nitration and Acylation of benzene
3. Addition of HCl on propene in the presence and in the absence of H₂O₂

3) Discuss the followings: (15 Mark)

1. Functional groups
2. Wurtz coupling reaction
3. Transference of 2° or 3° alcohols to 1° alcohols
4. ortho, meta, and para directing groups

With best wishes

EXAMINER	Prof. Dr. Adel selim	Dr. Mohamed Azaam
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TANTA UNIVERSITY FACULTY OF SCIENCE DEPARTMENT OF GEOLOGY			
EXAMINATION For the Second Level of Chemistry-Geology Students			
COURSE TITLE	Optical Mineralogy		COURSE CODE: 2105
DATE:	22/1/ 2017	Final Exam	TOTAL ASSESSMENT MARKS :100 TIME ALLOWED: 2 hrs.


Answer the following questions. Illustrate your answer.

1. Explain WHY and/or HOW? (30 marks)
 - a. Absent of 2V angle in uniaxial interference figures.
 - b. Interference figure can be differentiated between isotropic minerals and pseudo-isotropic ones.
 - c. Transparent calcite rhomb displays double refraction.
 - d. Interference figures display intensity of birefringence.
 - e. Pleochroism is absent seen in some colored minerals.
2. Refractive indices display an important role in almost optical properties of the minerals. Explain how and why? (20 marks)
3. State whether the following statements are True or False and correct the false one? (30 marks)
 - a. Optic axis is obtained by sections cut normal to the C-axis of uniaxial minerals.
 - b. The parallel sections of tetragonal minerals give the lowest optical properties.
 - c. Isogyres in interference figures are formed due to extinction position.
 - d. All uniaxial interference figures have the same optical behavior, at rotation of the microscopic stage.
 - e. Anomalous interference colors is most common property in isotropic minerals.
 - f. Zoning is characteristic optical feature of quartz and biotite.
4. Sketch and label three types of uniaxial interference figures showing their relations to its indicatrix. (20 marks)

Wishing Success for the ALL

Examiner: Prof. Mohamed Th. S. Heikal

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 1969	TANTA UNIVERSITY FACULTY OF SCIENCE DEPARTMENT OF GEOLOGY			
	EXAMINATION FOR SECOND LEVEL STUDENTS OF (GEOLOGY) - (GEOPHYSICS) - (GEOLOGY-CHEMISTRY)			
COURSE TITLE:	MICROPALAEONTOLOGY (1)		COURSE CODE: GE 2109	
DATE:	JANUAR, 2016	TERM: FIRST	TOTAL ASSESSMENT MARKS: 100	TIME ALLOWED: 2 HOURS

1) Write short notes on Five of the following questions. Illustrate your answers with clear drawings and give examples:

- Mixed chambers arrangement of test. (Five only) (10 Marks)
- Shape of the apertures in Foraminifera (Five only) (10 Marks)
- Mode of coiling in foraminifera (10 Marks)
- Sutures in Foraminifera. (10 Marks)
- Dimorphism in Foraminifera. (10 Marks)
- Application of Foraminifera (10 Marks)

2) Give Examples: (15 Marks)

- Biumbonate test.
- Surface ornamentation.
- Lobulate periphery.

3) Explain in details the factors controlling the distribution of foraminifera. (20 Marks)

4) Choose the correct answer of the following questions: (15 Marks)

- Microfossils are generally excellent indicators of
 - Tectonics
 - Earthquake
 - paleoecology
 - Paleogeography
- Foraminifera is
 - Unicellular animal
 - Unicellular plant
 - Multicellular animal
 - Multicellular plant
- Agglutinated foraminiferal test is formed of
 - Calcareous wall
 - Siliceous wall
 - Chitineous Walls
 - coarse/fine cemented particles
- Porcelaneous foraminiferal test is:
 - Perforate
 - semiperforate
 - imperforate
 - non-perforate
- Unilocular foraminiferal test is
 - septate
 - non septate
 - simply septate
 - limbate

Best wishes

Examiners	Prof. Mahmoud Faris Mohamed	Prof. Abdelfattah Ali Zalat
	Prof. Akmal Marzouk	