	TANTA UNIVERSITY FACULTY OF SCIENCE DEPARTMENT OF GEOLOGY			
	EXAMINATION FOR LEVEL THREE STUDENTS OF SPECIAL GEOLOGY			
	COURSE TITLE	IGNEOUS PETROLOGY 2		COURSE CODE:GE3103
DATE:	DEC., 24 2017	SEMESTER: FIRST	TOTAL ASSESSMENT MARKS : 100	TIME ALLOWE 2 HOURS

Answer the following questions:

1- Compare between the intrusive and extrusive igneous bodies in the light of their relationships to the adjacent country rocks ..... (20 marks)

2- Write short notes on the following:

a- Lacoliths and phacoliths ..... (10 marks)

b- Subaerial flows ..... (10 marks)

c- Intergrowth textures ..... (10 marks)

3- Classification of later stage of magma crystallization and mention two minerals occur in each phase ..... (13 marks)

4- Suppose any composition of a melt in the ternary system diopside-albite-anorthite and illustrate the path of crystallization ..... (13 marks)

5- The characters of uraniferous granite regarding the: Differentiation Index (DI) $Zr - CaO - Al_2O_3 - U$ and the highest content of U (ppm) in Egypt ..... (12 marks)

6- Illustrate on diagram

a. Peritectic point and incongruent melting ..... (6 marks)

b. Invariant and divariant in a unary system ..... (6 marks)

Examiner: Prof. Dr. Abdel Salam M. R. Abu El-Ela

Prof. Dr. Samir Mohamed Aly

	Tanta University Faculty of Science Geology Department	Palynology (3119) 3rd Year (Geology) امتحان آخر العام- الأحافير النباتية (علم حبوب اللقاح)	Time allowed: 2hrs. Date: 31/12/2017	

Answer the following questions

Question 1(20 Marks)

Complete the following statements

1. Palynological processes based dissolving carbonates via ……acid, and silicates via ……acid.
2. The palynological residue may contain several types of palynomorphs…1……., ….2…., ….3….. …..4…..,….5……,……6……..
3. Dinoflagellates are appeared for the first time in the …… sediments.
4. Some of dinoflagellates are toxic and causing the ……...
5. Dinoflagellates are more diversified when sea-level is ……...
6. Spores and pollen possess a wall consists of……..
7. Most acritarchs are probably the resting cysts of ……..…… phytoplankton.
8. Acritarchs is found throughout the geological column, but are most common in the ……
9. Acritarchs vary in size but most species range …… µm.
10. Dinoflagellates could have a single wall layer called ……..or have two wall layers called ……..and……
11. Spores are characterized by…… mark in the middle.
12. Chitinoza is very abundant in …… sediments.

Question 2 (20 Marks)

A. What is "the dancing dust of the sea"?

B. Define the dinoflagellate cysts archeopyle and illustrate and name its types? **(10 marks)**

Question 3 (20 Marks)

A. Write on (briefly) the relation of palynomorphs to sedimentation?

B. How you can distinguish dinoflagellates from acritarchs and spores from pollen? **10Mrks**

Question 4 (20 Marks)

A. Write briefly on the applications of palynology? **(10 Marks)**

B. What are acritarchs, illustrate and name five different of its body outline? (10 Marks)

Question 5 (20 Marks)

A. What is pediastrum? **(5 Marks)**

B. What is chitinoza? **(5 Marks)**

C. Pollen grains are produced in vast number, can you write on the main morphological characters used to identify/classify them? **(10 Marks).**

Best wishes, Dr. Ali Soliman, Prof. A. Salat

	TANTA UNIVERSITY FACULTY OF SCIENCE DEPARTMENT OF GEOLOGY			
	EXAMINATION FOR LEVEL THREE STUDENTS OF SPECIAL GEOLOGY			
	COURSE TITLE	IGNEOUS PETROLOGY 2		COURSE CODE:GE3103
DATE:	DEC., 24 2017	SEMESTER: FIRST	TOTAL ASSESSMENT MARKS : 100	TIME ALLOWE 2 HOURS

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Examiner: Prof. Dr. Abdel Salam M. R. Abu El-Ela

Prof. Dr. Samir Mohamed Aly

	TANTA UNIVERSITY FACULTY OF SCIENCE DEPARTMENT OF GEOLOGY			
	EXAMINATION For the Third Level of Special Geology Students			
	COURSE TITLE	Metamorphic Petrology (2)		COURSE CODE: GE3015
DATE:	26 /12/ 2017	First Semester	TOTAL ASSESSMENT MARKS :100	TIME ALLOWED: 2 hrs.

Answer the following questions. Illustrate your answer whenever possible.

1. How does the hydrothermal solutions come from and travel to be remarkable factor to metamorphism? (10 marks)

2. Differentiate between thermal metamorphic products and dynamic metamorphic ones. (15 marks)

3. Tick (√) or (x) for the following statements and correct the false one. (25 marks)

a. Recrystalliztion is related to thermal metamorphism.
b. Impact metamorphism gives rise to non-foliated rocks.
c.Radioactive decay is mostly main factor of heat source.
d.Polygonal texture is related to regional metamorphism.
e. Index of elongation of some minerals in gnessic rocks is more than found in granitic ones.
f. Ocean-floor metamorphism is pertaining to greenschist facies.
g. When meteorites slammed into terrestial rocks, the evidences of shatter cones and other features will be recognized in the most cases.
h. Slaty-cleavage is considered to be a finger-print of regional metamorphism.

4. Write short notes on the following: (15 marks)

a. Phase rule of one component system.
b. Determination of tectonic setting and origin of metamorphic rocks using their bulk rock chemical composition (geochemical data).
c. Determination of metamorphic facies, pressure and temperature using its mineral chemistry.

5. Discuss the progressive metamorphism of the Al_2O_3-CaO-SiO_2 (20 marks)

6. What are the difference between ACF, AKF and AFM phase diagrams (15 marks)

Wishing Success for the ALL

Examiners: Prof. Mohamed Th. S. Heikal & Prof. Bothina T. El Dousky

1969	TANTA UNIVERSITY FACULTY OF SCIENCE DEPARTMENT OF GEOLOGY			
	THEORETICAL EXAMINATION IN GEOPHYSICS FOF 3- LEVEL STUDENTS SPECIAL GEOLOGY			
	COURSE TITLE:	" GEOPHYSICS-1 "		COURSE CODE:
DATE:	/1/ 2018	TERM : FIRST	TOTAL ASSESSMENT MARKS:100	TIME: 2HOUR

ANSWER ONLY TWO QUESTIONS FROM THE FOLLOWINGS :

1- Write about THREE TYPES of Gravity data corrections.

2- Write in detail about the ground gravity survey.

3- Write about the Geomagnetic Field (components & origin) .

4- What are you know about the Aeromagnetic Survey.

5- DEFINE THE FOLLOWINGS:

A)- Towed –Bird Sensor.

B)- Grid –Spacing Design for potential survey.

C)- Regional – Residual Structures.

EXAMINER: PROF. DR. Mohamed Refaat H. Soliman

	Tanta University Faculty of Science Geology Department	Palynology (3119) 3rd Year (Geology) امتحان آخر العام- الأحافير النباتية (علم حبوب اللقاح)	Time allowed: 2hrs. Date: 31/12/2017	

Answer the following questions

Question 1(20 Marks)

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A. What is pediastrum? **(5 Marks)**

B. What is chitinoza? **(5 Marks)**

C. Pollen grains are produced in vast number, can you write on the main morphological characters used to identify/classify them? **(10 Marks).**

Best wishes, Dr. Ali Soliman, Prof. A. Salat

	TANTA UNIVERSITY FACULTY OF SCIENCE DEPARTMENT OF GEOLOGY		
	FINAL EXAMINATION FOR THIRD LEVEL (ALL SECTIONS)		
COURSE TITLE:	SEDIMENTARY PETROLOGY	COURSE CODE:	GE 3107
JANUARY, 2018	TOTAL ASSESSMENT MARKS: 100	TIME ALLOWED:	2 HOURS

ANSWER THE FOLLOWING QUESTIONS (Illustrate with drawings):

1- Define porosity and permeability of rocks, and mention their types and the different factors affecting them. (20 degree)

2- During transportation, sedimentary particles are variously affected in shape, surface features, sizes, sorting, roundness and sphericity – comment briefly. (20 degree)

3- Write on the different types of weathering processes. (15 degree)

4- Write shortly on the following: (15 degree)

a. Turbidity currents
b. Gravitational transporting processes
c. Characteristics of laterite & bauxite soils

5- Write shortly on the most common "Post Depositional Primary Sedimentary Structures". (15 degree)

6- Explain briefly the "Types of Deserts" and the most common features of "Erosion and Deposition in the Deserts". (15 degree)

EXAMINERS	Prof. A.T. Abdel-Hameed	Prof. A. El-Shishtawy	Dr. G. Mosa

TANTA UNIVERSITY FACULTY OF SCIENCE DEPARTMENT OF ZOOLOGY		
EXAMINATION FOR THIRD LEVEL STUDENTS OF SPECIAL ZOOLOGY		COURSE CODE: ZO 3103
Invertebrates of Egypt	TOTAL ASSESSMENT MARKS: 150	TIME ALLOWED: TWO HOURS
DATE: JAN, 2018	COURSE TITLE: TERM: FIRST	

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Part I (35 Marks)

I- Mention the function of the following cells in sponges:

- Choanocytes
- Porocytes
- Monocytes
- Lymphocytes
- Sclerocytes
- Grey cell

II- Write on the following:

- Previous investigation of sponge in Egypt
- Carnivorous sponge.

III. Enumerate the sponge spp. Inhabiting Egyptian water then explain in full detail with perfect drawing only one of them.

Part II (40 Marks)

A - Multiple Choice (MCQ) : (10 marks, 2 marks for each one).

1- Number of tentacles & mesenteries in alcyonarian polyps (Octocorallia) is:

( ) (A) 6 (B) 8 (C) 6 & its multiples (D) 8 & its multiples

2- Asexual reproduction by transverse segmentation of sessile polyps in cnidarian jellyfish is term

( ) (A) Strobilation (B) Hagenesis (C) Medusozoa

(D) Polystoma

3- Cnidae type that function ming tubes in which some cnidarians live is called

( ) a. nematocysts b. ysts c. ptychocysts d. statocysts

4- Mangrove jellyfish comm Red sea of Egypt called:

( ) (A) *Cassiopeia a da* (B) *Rhizostoma octopus*
(C) *Rhopilema nc* (D) *Pelagia noctiluca*

5 - In Mediterranean Sea s red coral *Corallium rubrum* belongs to:

( ) (A) Stolonifera yonacea (C) Gorgonacea (D) Coenothecalia

B– True/False. Indicat the sentence is true or false. Correct false sentences (10 marks, r each one).

( ) 1-Nematocyst venom into the tissues of humans and show a remarkab operty.

( ) 2- Snake-lo *Anemonia sulcata* is widely distributed in the Mediterranean Alexandria & Marsa Matrouh..

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3) Rotifera have allied with
   a. Aannelids.
   b. Arthropods.
   c. Both.

4) Nemertea have :
   a. True coelomate worms.
   b. Coelomate worms.
   c. Pseudo coelomate worms.

5) Ctenophora have:
   a. Trochophore larva. **b.**Pillidium larva. **c.** Cydippid larva.

Part IV (40 Marks)

1- Fill in the blank: **(12 marks).**

1- In Malacostraca the anterior three thoracic appendages are modified into ....., which are used in feeding.

2- In Pycnogonids, the head bears a long ..... at the end of which the mouth opining is located and three pairs of appendages, ..., ... and .....leg.

3- In Xiphosurida, the opithosoma bears ..... appendages, the first pair is united in the middle to form..... and the remaining appendages forming.....

4- In genus *Corophium* accessory flagellum is ..... and uropod 3 is.....While in genus *Melita* accessory flagellum is .....and uropod 3 is .....

2- Mention the similarities and differences between Superorders Hoplocarida and Eucarida. **(8 marks)**

3- Put True or False and correct the false one (√ or X): (8 marks)

a- Brachyura, Decapoda with abdomen and its appendages are more or less reduced. . ( )

b- In Genus *Idotea* antenna 1 always shorter than antenna 2. ( ).

c- Head in phyllocaridian animal has two movable segments anteriorly. ( ).

d- Hoplocaridian animals with large bivalve carapace. ( )

4- Answer the following: (12 marks)

a - Mention the differences between the following:-
   - Family Shaeromatidae and Family Cirolanidae .
   - Gammaridea and Caprellidea.

b- Write in details the body structure of order Tanidacea.

Examiners	Prof. Mohammed Mona	Prof. Fayez Shoukr
	Prof. Fadia Heiba	Prof. El-Sayed Rizk

8.

	TANTA UNIVERSITY FACULTY OF SCIENCE DEPARTMENT OF GEOLOGY			
	EXAMINATION FOR JUNIORS STUDENTS OF SPECIAL GEOLOGY			
	Course title:	Non-Metallic Deposits		Course Code: GE3115
Date: 15/01 /2018	January, 2018	Term: First	Total assessment Marks: 100	Time ALLOWED: 2 hours

Part One (50 marks)

Answer the following questions:

1) Compared between **(20 marks)**

a) ***Asbestiform variety*** **and** ***Nonasbestiform variety***
b) ***Nodular*** Cherts and ***Bedded*** Cherts
c) Evaporation Sequence of ***Seawater*** and ***Lakes***

2) Types of: **(20 marks)**

a) ***Graphite deposits***
b) ***Talc deposits***
c) ***Phosphatic Sedimentary Marine Rocks***
d) ***Mineral Fillers***

3) What do you mean by: **(10 marks)**

a) Salt rocks ***b) Vermiculite*** ***c) Alabaster***

d) Building stones ***e) Frasch Process***

Part Two (50 marks)

1) Carbonization of coal progressive metamorphism **(10 marks)**
2) Dendritic classification of abrasive materials **(15 marks)**
3) Different ranks and kinds of coal **(10 marks)**
4) Write short notes on the backbone material used in ceramic industry and what are the difference between ceramic and porcelain **(15 marks)**

Prof. Dr. Hassan Z. Harraz Prof. Dr. Bouthaina Taha El Desouky

	TANTA UNIVERSITY FACULTY OF SCIENCE DEPARTMENT OF GEOLOGY EXAMINATION For the Third Level of Special Geology Students			
	COURSE TITLE	Field Geology and Geological Studies		COURSE CODE: GE3111
DATE:	8/1/ 2018	Final Exam	TOTAL ASSESSMENT MARKS :100	TIME ALLOWED: 2 hrs.

Answer the following questions. Illustrate your answer.

1 . Explain WHY? **(30 marks)**

a. Geodetic surveying is more reasonable in the civil engineering.
b.. Map scale is very important with the help of legend in the final field mapping.
c. Intrusive contact represents a key for such rock successions.
d. Good field work is urgently needed team work experts.

2. Explain how the sampling techniques do represent the key of different styles of geological investigations. **(20 marks).**

3. Write short notes on significant features of fault and intrusive contacts. **(20 marks)**

4. Write a concise article on primary sedimentary structures. **(15 marks)**

5.Explain how to verify (in brief) the title, introduction, discussion and references for your preparation the final field project report. **(15 marks)**

Wishing Success for the ALL

Examiner: Prof. Mohamed Th. S. Heikal &
Dr. Ismail A. Thabet

	TANTA UNIVERSITY FACULTY OF SCIENCE DEPARTMENT OF GEOLOGY			
	EXAMINATION FOR JUNIORS (THIRD LEVEL) STUDENTS OF CHEMISTRY/GEOLOGY			
	COURSE TITLE:	**Structural Geology (1)**		COURSE CODE: GE 3101
DATE:	JAN. 18, 2018	TERM: FIRST	TOTAL ASSESSMENT MARKS : 100	TIME ALLOWED: 2 HOURS

I- **Complete** the following:- **(20 marks)**

1- A fold that closes sideways (right or left) is called: .....

2- ..... is a general term refers to tilting, folding and/or faulting of a rock sequence.

3- A type of unconformity with no tectonic deformation: .....

4- In the ..... fold, the axial plane is ..... and both limbs dip in the same direction, usually at different angles.

5- Thrust fault segments parallel to layering is termed: ....., whereas the segments that cut across layering is called: .....

6- We expect ..... faults when sigma-1 is vertical, ... faults when sigma-2 is vertical and ..... faults when sigma-3 is vertical.

7- Faults are recognized by several features: two of these affect the sequence of strata: ..... and .....

8- the lowest point on the synclinal surface is ....., whereas ..... is the highest point on the anticlinal surface

9- A belt of folds that extends SW from the central part of Syria across Palestine and nothern Egypt is termed: .....

10- A type of strain with no change in volume: .....

II- Choose the **correct** answer: **(20 marks)**

1- A circular upfolded structure with the oldest strata in the center is termed:
a- Anticline b- Dome c- Doubly plunging anticline

2- If the HW block has moved up relative to the FW block, the fault is called:
a- Reverse b- Normal c- Thrust

3- A fold which is characterized by constant bed thickness throughout the fold is:
a- Similar fold b- Symmetrical fold c- Parallel fold

4- A type of unconformity easy to see in the field:
a- Non-conformity b- Disconformity c- Angular unconformity