	TANTA UNIVERSITY FACULTY OF SCIENCE DEPARTMENT OF GEOLOGY				
	EXAMINATION FOR JUNIOR (THIRD YEAR) STUDENTS OF GEOPHYSICS				
	COURSE TITLE:	SPECIAL COURSE (MAGNETOSTRATIGRAPHY)		COURSE CODE: GP 3208	
DATE:	7/6/ 2014	TERM: SECOND	TOTAL ASSESSMENT MARKS: 100	TIME ALLOWED: 2 HOURS	

Answer the following questions:

(Illustrate your answers with drawing whenever possible)

1) Write in detail on the following: (50 marks)

- a) Induced and remanent magnetism. (10 marks)
- b) Evidences supporting field reversals. (10 marks)
- d) Presentation of magnetostratigraphic data. (15 marks)
- e) Nomenclature of the Pliocene magnetostratigraphy. (15 marks)


2) Write an account on the construction and evolution of the Geomagnetic Polarity

Time Scale (GPTS). (25 marks)

3) Discuss possible uses and applications of magnetostratigraphy, give an example from Egypt. (25 marks)

Good Luck!

EXAMINERS	PROF. ABDELAZIZ L. ABDELDAYEM	PROF. SHADIA T. EL-KHODARY

 1969	TANTA UNIVERSITY FACULTY OF SCIENCE DEPARTMENT OF GEOLOGY		
	EXAMINATION FOR THIRD LEVEL GEOPHYSICS STUDENTS		
COURSE TITLE:	COMPUTER APPLICATION IN GEOPHYSICS	COURSE CODE: GP 3210	
DATE:	JUNE 9, 2014	TERM: SECOND	TOTAL ASSESSMENT MARKS:100
			TIME ALLOWED:2 HOURS

Answer of the following questions:-

1. Explain the uses of computer in potential data processing.
2. Write about the application of computer in mining geophysics.
3. The role of computer in revealing and modeling subsurface structures.
4. Discuss each of the following?
 - a. The Software Counterfeiting.
 - b. Software for Workgroups.
 - c. Software for Small Business.
5. Fill in the blanks in the following sentences:-
 - a. The types of software applied in geophysics are.....and.....
 - b. The Software Piracy is.....
 - c. Public-domain software are,.....and
 - d. Share software mean
 - e. The functions of the Center Help Desk are,.....and.....
 - f. Chief information officer (CIO) is.....
6. Mention the uses and functions of the following.
 - a. Desktop Publishing.
 - b. Electronic Spreadsheets.
 - c. Word Processing.
 - d. Database Management.
 - e. Computer Art.

EXAMINERS	PROF. DR. MOHAMED REFAAT SOLIMAN	DR. MOATAZ KHAIRY BARAKAT
------------------	---	----------------------------------



TANTA UNIVERSITY
FACULTY OF SCIENCE
DEPARTMENT OF GEOLOGY

EXAMINATION FOR (THIRD YEAR) STUDENTS OF GEOPHYSICS

1969	COURSE TITLE:	INTERPRETATION OF GRAVITY POTENTIAL		COURSE CODE: 3204
DATE	MAY , 2014	TERM: SECOND	TOTAL ASSESSMENT MARKS 100	TIME ALLOWED: 2 HOURS

- 1) Write a short essay on the two methods Direct and Standard curves for the quantitative interpretation of the gravity anomalies of the different geological structures
- 2) The gravity vector direction on the earth can be analyzed into the x, y and z directions . Write the different notations used and their derivatives also the meaning of each notation.
- 3) The derivative of the gravity anomaly (the first and the second) of horizontal and vertical anomaly are very important for interpretation of different structures . Draw how these curves are used for identification of subsurface different structures
- 4) Write on the mathematical solution of the 2 circles method



TANTA UNIVERSITY
FACULTY OF SCIENCE
DEPARTMENT OF GEOLOGY

EXAMINATION OF 3RD YEAR SPECIAL GEOLOGY STUDENTS

COURSE TITLE:	GEOPHYSICS (2)		COURSE CODE: GE 3226
DATE:	4 JUNE 2014	TERM: SECOND	TOTAL ASSESSMENT MARKS:100
			TIME ALLOWED: 2 HOURS

(I) Radioactive Method

Answer the following questions:

- (1) Enumerate and describe the following:
 - (A) Sources of Radioactivity. (10 marks)
 - (B) **Two** types of Spectrometers. (10 marks)
 - (C) Nuclear forces. (10 marks)
- (2) Describe the radioactive decay processes. (10 marks)
- (3) Illustrate the radioactive minerals. (10 marks)

(II) Seismic Methods

Answer of the following questions (illustrate your answers with clear drawings whenever possible):

Question (1):

- A) Discuss the following:- (25 marks)
- Types of seismic waves.
 - Fermat's principle and Snell's Law.
 - Rigidity modulus.
 - Seismic wave velocity in sedimentary rocks.
 - T^2-X^2 curve.

Question (2):

- Write a short essay about the use of seismic refraction shooting to estimate the depth to a refracting interface separating two horizontal media. (25 marks)

EXAMINERS	PROF:MOHAMED K. SALAH	PROF: SHADIA T. ELKHODARY
-----------	-----------------------	---------------------------



TANTA UNIVERSITY
FACULTY OF SCIENCE
DEPARTMENT OF GEOLOGY


EXAMINATION FOR JUNIOR (THIRD YEAR) STUDENTS OF GEOPHYSICS

COURSE TITLE:	ELECTROMAGNETIC METHODS (2)		COURSE CODE: GP3206
DATE:	4/6/ 2014	TERM: SECOND	TOTAL ASSESSMENT MARKS: 100
			TIME ALLOWED: 2 HOURS

Answer the following questions:

1. Explain in details the electromagnetic induction process. (20 marks)
2. Write briefly about the following: (20 marks)
 - a. Types of electromagnetic techniques and surveys.
 - b. Amper's right hand rule.
 - c. Skin depth.
 - d. Electromagnetic waves.
3. Write about the ground penetrating radar (GPR) system and its applications. (20 marks)
4. Discuss the following: (20 marks)
 - a. Factors affecting the conductivity of a medium.
 - b. Factors affecting the depth of penetration of the EM wave.
5. Read well each statement and mark either (✓) if correct or (X) if wrong: (20 marks)
 - a. The depth of penetration increases with increasing the frequency. ()
 - b. The time domain electromagnetic surveys can reach to 1000 m. ()
 - c. The magnetic component is in vertical plane in EM waves. ()
 - d. Electromagnetic waves can exist without a medium. ()
 - e. TDEM technique makes measurements as a function of time. ()
 - f. The VLF transmitting signals are in the band from 15 to 25 MHz. ()
 - g. The receivers in EM techniques measure the secondary fields only. ()
 - h. The shielded GPR antenna contains transmitter and receiver in one unit. ()
 - i. The Interpretation of the VLF-EM technique is generally qualitative. ()
 - j. Slingram, is a fixed source Frequency Domain Electromagnetic. ()

EXAMINERS	PROF. AHMED ANTAR NIGM	

	TANTA UNIVERSITY			
	FACULTY OF SCIENCE			
	DEPARTMENT OF GEOLOGY			
EXAMINATION FOR THIRD LEVEL STUDENTS OF GEOPHYSICS				
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)

- A) Write briefly on the following:
- 1- Define the process of residual and mechanical concentration describing by drawing only the different types of both-residual and mechanical concentrations.
 - 2- What is the difference between:
 - a) Barite and pyrite.
 - b) Cooperite and cuperite.
 - c) Manganite and magnetite.
 - d) Gypsite and gibbsite.
 - 3- Write on the following; illustrating your answer with drawing if it possible:
 - a) Salt dome.
 - b) Oxidation of supergene enrichment.
 - c) Cycle of phosphorus.
 - d) Calcium sulphate deposition.

Examiners:

Prof. Ibrahim Salem

Prof. Bothina Eldsoky

	TANTA UNIVERSITY FACULTY OF SCIENCE			
	DEPARTMENT OF GEOLOGY			
	EXAMINATION FOR THIRD LEVEL STUDENTS OF 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) Distinguish between weathering and depositional methods of the formation of economic mineral deposits.
- 2) Uranium ore minerals? And mention the different categories of uranium deposits.
- 3) Morphology and zoning of supergene enrichment.
- 4) Different forms and types of laterite-type bauxite deposit.
- 5) Define: (a) Placer mineral deposits; (b) Laterite mineral deposits; (c) Fossil placer

Examiners:

Prof. Ibrahim Salem

Prof. Hassan Haraz