#### ARAB REPUBLIC OF EGYPT

E۱۳۰۹/ أول ( دمج )

#### **Ministry of Education**

# General Secondary Education Certificate Examination, Y. \A {First Session}

Earth Sciences Time: "Hours

(الأسئلة في ٥ صفحات)

#### **Answer Four Questions Only**

#### **First Question:**

- (A) Underline the correct answer from those between the brackets for each of the following:
- \'- The first type of rocks which was formed in the earth crust and it is called the mother of rocks. These are ...... rocks

(igneous – sedimentary – organic – metamorphic)

- Y- One of the primary geological structures in the earth's crust rocks are ...........
  - (faults folds ripple marks joints)
- Υ- A mineral which is used in the cement manufacture and its hardness reaches Υ is ....

  ( hematite calcite galena quartz )
- <sup>2</sup>- The science which studies the remains of living organisms, that can be found in the sedimentary rocks and by which we can determine the geologic age of these rocks is ........

(Structure geology - Physical geology - Stratigraphy - Paleontology)

o- On adding water to anhydrite minerals, it turns into..... minerals.

(Kaolinite - Gypsum - Halite – Calcite)

(B) Choose from group (B) what is matching with each in group (A). Put the letter indicating scientific term of group(B) between brackets in group (A).

Group (A)	Group (B)
1) It can make its food at depth 10 meters in	(a) Temporary vegetation
sea water. ( )	(b) Permanent vegetation
Y) Places provide food for cattle herds which	
a man depends on as a protein source for	(c) The natural grazing
food. ( )	(d) Brown algae
<sup>r</sup> ) Annual plants that appear after rains in	
winter and disappear by drought in	(e) The natural protectorates
summer. ( )	(f) Decomposers
(2) Places for protecting rare species that are	1
exposing to extinction. ( )	
°) Microscopic organisms that take their	
food from the dead bodies. ( )	

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## **Second Question:**

(A) Put the letter indicating the correct statement between brackets in front of

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each scientific term.		
Terminology:		
\(\frac{1}{2}\)- Photoperiodism (\(\) \(\) \(\frac{1}{2}\)- Fault (\(\) \(\) \(\) \(\) \(\) - Joints (\(\) \(\)		
٤- Residual Soil ( )	urce	(
Statements:		
a- Fractures present in all types of rocks without displacement.		
b- A soil formed in the place of the same original rock and characterized by		
the gradual texture of grain size.		
c- Everything found in the natural environment of components which man has	S	
nothing to do with its presence and depends on it in his various life aspects		
d- Calcareous deposits grow from the floor of a cave.		
e- The relation between the light period and the darkness period that the plant	is	
subjected to sequentially every ۲5 hours.		
(B) Give reasons by putting the letter of the correct reason between brack	xets:	, <u>)</u>
\'- Oil is not considered a mineral for a specialized geologist because it is	(	)
a) solid matter		
b) inorganic		
c) liquid matter and has no definite chemical composition		
d) having distinct crystalline form		
Y- Basalt rock is characterized by micro crystalline texture due to	(	)
a) subject to pressure and temperature		
b) cohesion and lithification of grains by cementing material		
c) slow cooling of lava above earth surface		
d) fast cooling of lava above earth surface		
T-The colour property is of a little importance in mineral identification because	se	
the colours of most minerals are	(	)
a) changing due to impurities		
b) not affected by impurities		
c) not affected by the differences in chemical composition		
d) having strong luster		
٤- Phytoplankton spread in the surface layers of the marine ecosystem due to	(	)
a) availability of light necessary for photosynthesis		
b) increasing of water pressure		
c) shortage of light		

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d) increasing of salt concentration

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°- The	foliation property is show	vn in mica schis	t as a result of	(	)		
a) compaction of clay and mud components							
b) exposure of granite to pressure and temperature							
C	c) arrangement of mica cr	ystals in one dire	ection, perpendi	cular to the direc	tion		
	of pressing force						
C	d) exposure of limestone t	o high temperati	ure				
<b>Third</b>	<b>Question:</b>						
(A) Pu	t ( $$ ) in front of the correc	t statement and	(×) in front the	of incorrect state	ment:		
۱- Regi	ulated grazing causes degrae	dation of trees and	l vagrancy of ani	mals. (	)		
۲- The	nonconformity surface is	between layers,	, the older layer	s are tilted and th	e		
you	inger layers are horizontal	l.		(	)		
۳- Lar	ge fishes contain highest l	level of energy in	n the marine eco	osystem. (	)		
٤- Gol	d is one of the minerals th	nat have nonmeta	allic luster.	(	)		
°- Son	ne desert animals such as	jerboas do not to	ouch water all th	neir life, since the	y feed		
	seeds and succulent plants	•		(	)		
(B) Pu	ut ( $$ ) in front of rock ty	pe to which the	following rock	s belong:			
			Rock Type				
	Rock Name	Igneous Sedimentary		Metamorphic			
	200022100220	Rocks	Rocks	Rocks			
)	Gypsum	1100115	110 0110	1100115			
۲	Microdiorite						
<u></u>							
4	Quartzite						
2	Gabbro						
B	Conglomerates						
<b>Fourth</b>	n Question:						
(A) M	ention one example for <b>o</b>	each of the follo	wing.				
	(put the letter indicat	ing each statem	ent in front of	the suitable exa	mple)		
	<u>cample:</u>						
۱- The	terraces ( ) Y- cube ( ) °-	Marble (	) <sup>r</sup> - The he	xagonal (	( )		
٤- The	cube ( ) °-	Plastics (	) 7 - Roami	ing crustaceans. (	( )		
<b>Staten</b>							
	netamorphic rock formed		_	te crystals due			
	he contact between limest	•					
•	anisms stay all day below aviolet rays.	a depth of abou	it <sup>YV</sup> meters und	lerwater to escape	e		
c- A crystal has three crystal axes equal in length whose angles are right angles to each							
other.							
d- Materials are used in manufacturing pipes instead of non-renewable metals.							
e- A shape formed as a result of differential erosion by wind.							
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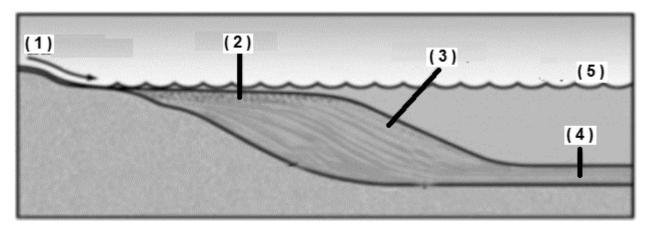
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(B) What would happen in each of the	followir	ıg?			
(by putting the letter of the correct che	oice bety	veen brackets.)			
\- Spreading of human population on ag	ricultura	l land to build ho	ousing and		
establish of projects leads to			-	(	)
a) Decreasing agricultural resources.					
b) Increasing agricultural resources.					
c) Increasing the fertility of soil.					
d) Soil acquires desirable physical pro	perties.				
Y- The meeting of river water with seaws	ater havi	ng strong sea cu	rrents	(	)
a) delta is formed	b) river	terraces are form	ed		
c) spits are formed	d) delta	is not formed			
Ψ- A fracture is resulting from tension, an	nd the ha	nging wall mov	es along the	fault	
plane downward. The fault is	formed			(	)
a) horst	b) grab	en			
c) reverse	d) norn	nal			
٤- Decreasing evaporation of water due t	o decrea	sing temperature	e and increas	sing r	ain
and falling water from river estuaries	lead to			(	)
a) increasing concentration of soluble	salts				
b) decreasing concentration of soluble	salts				
c) various types of dissolved salts					
d) decreasing concentration of sodium	chloride	:			
°- Passing the river water over a solid lay	yer that o	overlaid the top	of a soft laye	er,	••
is formed.				(	)
a) wind terraces	b) mean	nders			
c) river terraces	d) wate	rfalls			
<b>Fifth Question:</b>					
(A) Complete each of the following phi	rases.				
( put the letter that indicate each state			table word	)	
Words: \ - Quartz	( )	۲ - Oil shale	( )		
$^{ au}$ - Eroding the agricultural soil	. ( )	٤ - The sunset p	period ( )		
°- Mantle	( )				
<b>Statements:</b>					
a) Removal of the upper layer of soil to us			•		
b) The period in which the activity of t	he day a	nimals is reduce	ed gradually	and	then
they return to their shelters.					

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- a) F
- b)
- c) One of the Earth's regions that has a thickness about <a>۲۹..</a> km and contains partially molten (elastic) rocks.
- d) Muddy rock rich in hydrocarbons, are mostly of plant origin and has a waxy solid state.
- e) A mineral has nonmetallic luster and concoidal fracture.

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B) The diagram below shows Delta Cone in the river. Put the numbers given in the diagram in front of the suitable label.



- a) Sea Level. ( )
- b) Clay. ( )
- c) Delta Plain. ( )
- d) Gravel and sand. ( )
- e) Layers of Delta. ( )

{ انتهت الأسئلة }