ARAB REPUBLIC OF EGYPT	(۱٤۸) ث . ع / أول / E			
Ministry of Education General Secondary Education Certificate Examination, 2017				
[First Session]				
Geology & Environmental Sciences	Time: 3 Hours			
الجيولوجيا والعلوم البيئية " باللغة الانجليزية "				
نة العربية مع الورقة المترجمة . [الأسئلة في خمس صفحات]	<u>تنبيه مهم</u> : يسلم الطالب ورقة امتحانية باللغ			
Answer (Four) questions only of the following:				
The First Question:				
(A) Choose the correct answer from those between bracke	ts for each of the following.			
And then underline it:	2			
1- A zone consists of molten iron and nickel having dens	ity of about $10 \text{ g}/\text{cm}^3 \dots$			
(crust – mantl	e – outer core – inner core)			
2- It is preferable to use oil more than coal because oil				
(is easy to be transported and stored – has less the	rmal value –			
has higher mining cost – mor	e polluting to environment)			
3- A mineral has hardness 3 and glassy non-metallic luste	er is			
(feldspar –	calcite – quartz – gypsum)			
4- All the following are secondary geological structures i	n Earth's crust rocks			
<u>except</u>				
(reverse fault – mud cracks nonconformity surfa	aces – joints – syncline fold)			
5- The activity of the daytime animals decreases graduall	y and then returns to their			
	– sunset – daytime – night)			
(B) Choose from group (B) what is matching with group (A)				
of the correct statement between the brackets at the er	nd of each statement in			
group (A):				
Group (A)	Group (B)			
a) The desert animal that has big ears to collect sound waves from far distances.	1- Red algae			
b) When the rate of grass growing is more than the rate	2- Overgrazing			
of animal consumption of this grass. ()	3- Fennec fox			
c) They can make their food at depth down to 15 meters	4- Consumers			
in sea water. ()	5- Jerboa			
d) They depend on green plants for their food. ()				
e) When the rate of grass growing is less than the rate	6- Organized grazing			
of animal consumption of this grass. ()	7- Brown algae			
[بقية الأسئلة في الصفحة الثانية]				

		[2]	تابع (۱٤٨) ث . ع / أول / E			
The Second Question	<u>on</u> :					
(A) Put the number of the scientific term that is indicated by each of the following						
phrases betwee	en the brackets:					
Terminology:	1- Residual Soil	2- Tropism	3- Eroding soil			
	4- Axial plane	5- Abyssal Zone	6- Renewable resources			
Statements:						
a) The imagina all aspects.	ry plane which divid	es the fold into two ec	ual and identical parts in			
b) A soil forme by gradual te	-	e same bottom rock an	nd it's characterized			
		he soil surface to be us	sed in making red bricks.			
	of the top hayer of th		()			
d) A sea zone c	ontains red clay of v	volcanic deposits.	()			
	•	lant without movemen	it of the body due to			
	-	mines the position of t	•			
from the pla		1	()			
-		ving : (Underline the	correct answer):			
1- The roaming	g crustaceans keep all	l day under sea water a	and migrate during the night			
to the surfac	e because of					
(looking for	food - being affect	ed by ultraviolet ligh	ıt —			
d	ecreasing of the act	ivity and size of the s	exual glands – laying eggs)			
2- Diorite rock	is characterized by c	coarse (large-sized crys	stals) crystalline texture			
because						
(the slow co	oling of magma dee	ep underground – the	e rapid cooling of magma			
deep underg	ground — the slow c	ooling of lava above	the earth's surface –			
	the	rapid cooling of lava	above the earth's surface)			
3- The organic fertilizers have a major role in the natural environment as they						
(led to the deterioration of the soil – cause the soil to lose desirable physical						
characteristics — involve into the food chains —						
deactivate living organisms in the soil)						
4- Oil is not mineral for a geologist specializing in mineralogy because it						
(is liquid and non-organic origin – has distinct crystalline form –						
is liquid and non-organic origin – has a definite chemical structure)						
5- The foliation property appears in shale or laminated mud as a result of						
(compressing mud components – exposure of the granite to temperature and						
pressure – exposure of the mud rock to temperature and pressure – exposure of shale to high pressure and low temperature)						
	[بقية الأسئلة في الصفحة الثالثة]					

	[3]	(۸ ± ۱) ث . ع / أول / E	تابع
The Third Question:			
(A) Put (Y) in front of correct statement	and (×) in fro	ont of incorrect statement for	
each of the following:			
1- Halite is a mineral that has rhombohe	edra cleavage.	()
2- The spores revert to form cyst when t	he temperatur	re of the medium where	
they live becomes unsuitable.		()
3- The angular unconformity surface is	between layer	s, the older group layers	
are igneous rocks and the younger lay	vers are horizo	ontal sedimentary rocks. ()
4- The environmental recourses are ever	ything found	in the natural environment	
from components which man has not	hing to do wit	th its presence or creation,	
but he depends on it in his various life	e aspects.	()
5- Stalactites and stalagmites are formed	l in caves as r	esult of degradation of	
underground water.		()

(B)	Put (Y) in	n front of rock	type which ea	ch of the foll	owing is belongs to:
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	D I N	Rock Type		
No Rock Name	Sedimentary	Metamorphic	Igneous	
1	Conglomerate			
2	Quartzite			
3	Gabbro			
4	Phosphate			
5	Rhyolite			

[بقية الأسئلة في الصفحة الرابعة]

	[4]	تابع (۱٤٨) ث . ع / أول / E			
The Fourth Question:					
(A) Mention one example for each of the following: (put the number of suitable					
example in front of each phra					
The examples:	,				
1- Temporary vegetation	2- Cambrian	3- Cubic system			
4- Spraying irrigation	5- Gypsum	6- Jurassic			
Statements:					
a) A Period characterized by c	lomination of trilobites ar	nd the appearance of skeletal			
organisms.		()			
b) A mineral is formed as a res	sult of adding water to the	anhydrite mineral. ()			
c) Annular plants appear in wi	nter after the rain and disa	appear by the arrival			
of draught in summer.		()			
d) A crystal system has three a	xes that are equal in lengt	ths and perpendicular			
angles.		()			
e) An irrigation method is used	l to treat water wasting ar	nd rationalize consumption.			
		()			
(B) What would happen in each of	of the following? (Und	lerline the correct answer):			
1- When the wind carrying san	1- When the wind carrying sand collides with a cusp or obstacle, are formed.				
(sand dunes – dry delta –	(sand dunes – dry delta – triangular or pyramid shape gravels – mature soil)				
2- When evaporation rate of sea water decreases as a result of a decrease of					
temperature and increase rain and water falls from river mouths, the					
(dissolved salt concentration	(dissolved salt concentration decreases – dissolved salt concentration increases				
 – types of soluble salts differ – concentration of sodium chloride increases) 					
3- A fault is resulting by tension where the hanging wall is moving downward along					
the fault plane with respect	-				
(normal – reverse – thrust – horst)					
4- Passing of ground water containing carbon dioxide and dissolved acidic salts					
through the limestone rocks, are formed.					
(fossils – petrified wood – talus slope – caves)					
5- Over-cutting of forests trees leads to					
(increasing of raw materials for the wood industry – protection of animals					
from extinction – deterioration of the soil and the natural vegetation –					
decreasing of temperature due to the increase of carbon dioxide gas)					
[بقية الأسئلة في الصفحة الخامسة]					

	[5]	تابع (۱٤٨) ث . ع / أول / E			
The Fifth Question:					
(A) Complete each of the follow	ing statements: (put th	ne number of suitable word in			
front of each phrase):					
<u>Words</u> :					
1- biosphere	2- porphyritic	3- pyrite			
4- physical geology	5- natural protector	rates			
Statements:					
a) We should establish	to protect the rare en	dangered species from extinction.			
b) A mineral which has golde	en colour and black strea	ak is			
c) A branch concerned with s	studying the external and	d internal factors and their effect			
on the rocks of this planet	is				
d) A rock texture which const	ists of large crystals bet	ween smaller crystals			
characterizing the intruded	igneous rocks is				
e) The area extending betwee	e) The area extending between the deepest seas to the highest mountains altitude				
where life exists is					
(B) Study the opposite figure ca	refully. Put the numbe	er on the figure in front of			
the suitable word:					
a) The original rock.	()				
b) Subsoil.	()				
c) Mature soil.	()				
d) Topsoil.	()	(3)			
e) Upper the original rock.	()	330-1-C			
		(4)			
		Vertical section in (5)			
	[انتهت الأسئلة]				