Faculty of Agriculture Agric. Eng. Dept.	Final Exam. On English for Specialists لغة انجليزية للمتخصصين For First Level Students Course Code (Unv.103)	Academic year 2015/2016 Second Term Exam Date 15 /06/2016 Total Marks 80 Credit hour:- 2 hours
Program of Biosystems and Agriculture Engineering		

Please, answer the following questions, they are distributed on two pages)

1-Write the defined terminology for each of the following statements: (15 Marks)

No	Statements of the terminology	Terminology
1	A plane figure having three sides, its area=base× one-half altitude.	
2	It is a plane figure with four sides only two of which are parallel. The area of that figure=altitude×one-half the sum of parallel sides	
3	Any processing activity that maintains or raises the quality the form or characteristics of a farn product	
4	A process of removing heat from a body that is below the temperature of its surroundinds.	
5	The removal of moisture from a product. These terms are uesed interchangeably	
6	The removal of moisture to a very low moistre content, nearly bone-dry condition	
7	A process to remove husk from grain and change it into`brown grain`	
8	A person who specializes in machining operations in a workshop	
9	It is defined as the force per unit area, and usually expressed in Kilo-Pascal, or bar	
10	A container which stores fluid under pressure and could be used for storing hydraulic energy or to absorb hydraulic shock	
11	A vehicle designed mainly to pull, and operate agricultural machinery	
12	They are devices fitted on the two rear wheels to stop or to slew the motion of tractors or vehicles in one direction	
13	A device, used to connect and disconnect the engine from the gearbox	
14	An implement which is mounted on the tractor during transport.	
15	Deep tillage done by chiseling, below 406 mm for the purpose of loosening soil for root growth and/or water movement	
16	A process to remove bran from brown rice and change it into white rice.	
17	A process to clean grain free from straw, trash, empty grain,	

	dust, etc.	
18	It is common type of spray-irrigation systems. It has an electric motor to move a metal frame in a big circle around the field.	
19	An irrigation system, in which water is pouring or pumped to the fields and is allowed to flow along the ground among the crops	
20	An irrigation system, in which, water is sent to the crop roots through plastic pipes (with holes in them).	

2. Complete the following to make meaningful sentences, (15 Marks)

1) The six simple machines are recognized as follows: …, …, ……, ……., ……, …….
2) If a car is being pulled on level ground by a force of 10 kN at an angle of 20° to the horizontal, the pull force can be resolved into two components as follows:-

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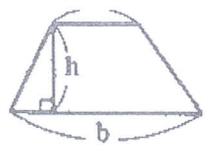
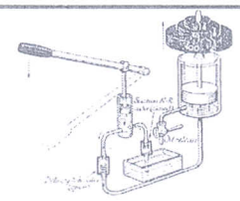
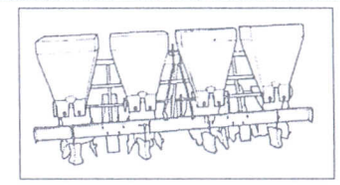
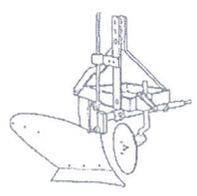
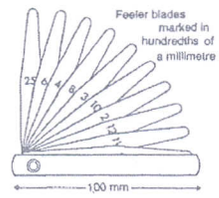
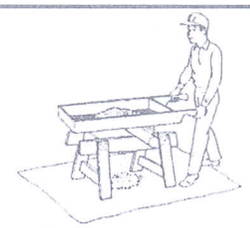
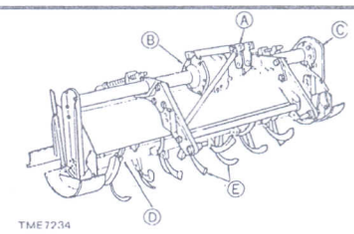
3) Tractors can be classified according to the engine type into the following ….., ….., …..
4) The list of hand-tools that should be found in most workshops are : ……, ……, ….., ……., ……., ……, ……., ……, ……., ……., ……., …….
5) Examples of primary tillage implements are: ……,……,……,……..
6) Examples of secondary tillage implements are:……,……..,……,……,…..,……
7) The center pivot is common type of spray-irrigation systems.
7) Examples of planting machinery are: ……. ,……..,……,……..
8) The major properties of liquids are:
9) The techniques that farmers use to get more-efficient surface-irrigation are : ……, ……,…… ,……
10) The Farm Processing is……
11) Tractors are classified according to traction devices into the following classes:-
12) Examples of processing activities that is or can be done on the farm products are: … , ……, ……, ……., ……., ……., ……,
13) The Surface irrigation is also known as ……
14) CC of an internal combustion engines is abbreviated ……..
15) The spike-tooth harrow is used ……

Third Question (8 Marks)

3. Look at the following figures. State the figure's title that refer by the alphabets (A, B, C,…etc) on each figure?. Then, write 2sentences related to each title? ((12 Marks):

			
A —	B —	C —	D —
			
E —	F —	G —	H —

Forth Question

4.1 Translate the following paragraphs to English, (10 Marks)

الرى بالتنقيط يعتبر اكثر اساليب الرى المستخدم اليوم، يعطى اكبر كفاءة رى ويوفر ٥٠% من مياه الرى لمحاصيل معينة عن الرى بالغمر وطرق الرى التقليدية حيث باستخدامه نسبة صغيره جدا تفقد بالبخر. حيث هناك تكنولوجيات واعدة للمحافظة على مياه الرى فى المناطق القاحلة والشبه قاحلة، إعادة تأهيل وتحديث نظم الرى والصرف، الرى بالتنقيط، جدولة شبكات الصرف المغطى، تقدير البخر–نتح، والتحليل الإقتصادى لنظام تطبيق السماد السائل والأداء المثل لموارد المياه فى شبكات الرى

4.2 -Translate the following paragraph (Only a) to Arabic, (10 Marks)

(a) Tillage implements designed primarily for use in the fields of food and fiber production. It does not include implements designed for earth movement and transport. Primary tillage displaces and shatters soil to reduce soil strength, and to bury or mix plant materials and fertilizers in the tilled layer. Primary tillage is more aggressive, deeper, and leaves a rougher surface (these implemnts are mouldboard, disk, chisel ploughs, listers, disk beders and subsoilers) relative to secondary tillage. Secondary tillage that works the soil to a shallower depth than primary tillage, provides additional pulverization, levels and firms the soil, closes air pockets, and kills weeds. The common secondary tillage tools are disk harrows, offset disk, heavy tandem disk and powered rotary tillers

(b) The Topics included for working in the field of Power and Farm Machinery are: Farm power availability and future; Tractors and agricultural vehicles; Dynamics, vibration and noise; Forest engineering; Hydraulics and turbo machinery; Clean technology. Farm Machinery are required for carrying out various agricultural operations, starting from the tillaging to harvesting, threshing, winnowing and storage.

© The availability of wind power for farm work is limited. Where the wind velocity is more than 32 km/hr, wind mills can be used for lifting water. A wind mill having 3.6 m diameter wheel mounted on 12.0 m tower is able to produce from 0.1 to 0.9 hp with the wind velocity varying from 6.4 to 37 km per hr. Thus the average capacity of a wind mill would be above 0.5 hp.

5. Read the Comprehension Above Part 4.2 (a, b and c) *and answer* the following questions, (17 Marks)

5.1 What are the topics of power and farm machinery? (3 degrees)

5.2 Why tillage processes are very important reaction for land-crops? (3 degrees)

5.3 What are the major tillage tools for primary and secondary tillage operations? (2 degrees)

5.4 Site the differences between primary and secondary tillage operations, (3 degrees)

5.5 What are the common resources of the energy, to solve our electricity problem, explain thewind power?

5.6 What are the topics of farm power and farm machinery? (3 degrees)

أتمنى لكم التوفيق

End of Questions, Wish You Good Luck;
Prof. Dr. E.B. ELbanna