 Faculty of Agriculture Agric. Eng. Department First Level Students	Final Second Term Exam. On English for Specialists لغة انجليزية للمتخصصين Program of Biosystems and Agriculture Engineering	Academic year 2013/2014
		Exam Date 16/5/2014
		Course Code (Unv.103)
		Credit hour:- 2 hours
		Total Marks = 80
<i>Please, answer the following questions, they are distributed on two pages)</i>		

First Question (33 Marks)

- 1) Give three examples of different forms of energy... .. (3 Marks)
- 2) Write the formulae to get the area for: - parallelogram, rectangle, and circle... (3 Marks)
- 3) What is a force? What is pressure? What is power? (3 Marks)
- 4) What are the abbreviated symbols (ICE-CC- JICA and FAO) referred to? ... (4 Marks)
- 5) Give three examples of measuring- tools that are used in most workshops? ... (3 Marks)
- 6) Give three examples of food processing that can be done on the products? ... (3 Marks)
- 7) What are tractors classes that classified according to traction devices type? ... (3 Marks)
- 8) What is the moment of a 50 KN force acting at 2m perpendicularly distance measured from the turning centre to the force direction? (3 Marks)
- 9) Mention three types of fuel that can be used in the tractor engines? (3 Marks)
- 10) Write a short paragraph on the operation principle of hydraulic jack? (5 Marks)

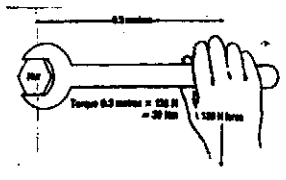
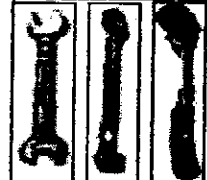
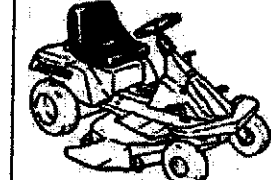
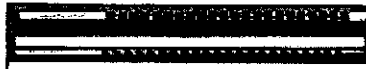
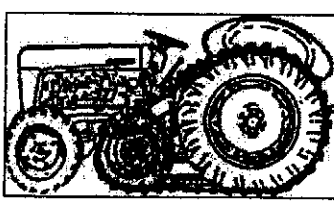
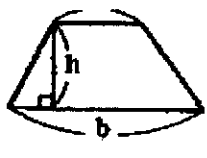
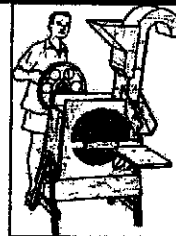
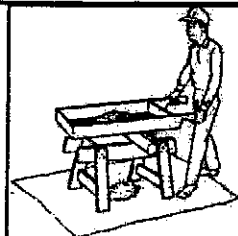
Second Question (10 Marks)

Write the defined terminology for each of the following statements:-

No	Statements of the terminology	Terminology
1	A plane figure having three sides, its area = base \times one-half altitude.	.....
2	A person who specializes in machining operations in a workshop	.....
3	It is used for measuring very small gaps, in hundredths of a millimeter	.....
4	A vehicle designed mainly to pull, and operate agricultural machinery	.....
5	A device, used to connect and disconnect the engine from the gearbox	.....
6	A device which converts mechanical energy into hydraulic energy	.....
7	They have no shape of their own, and they transmit applied pressure in all directions.	.....
8	A process to remove bran from brown rice and change it into white rice.	.....
9	A process of removing heat from a farm product	.....
10	A machine that performs paddy husking and rice whitening at the same time in the same machine,	.....

Third Question (16 Marks)

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

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

Forth Question (21 Marks)

Translate the following paragraphs to Arabic

- 1) In heat engines, not all fuel is converted to useful energy. Some heat energy is lost through friction, exhaust gases, and through the cooling system of the engine. The ratio of fuel converted into useful mechanical energy to lost heat is called Engine thermal efficiency..... (6 Marks)
- 2) The three common irrigation systems are: Surface irrigation, Drip irrigation, and Spray irrigation .In surface irrigation, water is pumped to the fields and is allowed to flow free among the crops. In drip irrigation, water is sent through plastic pipes (with holes in them). These pipes are either laid along the rows of crops or even buried along their rootlines. The center-pivot irrigation is common type of spray-irrigation systems. In this system water flows through a pipe and is shot out by nozzles. The pipe is hanging above the crop and propelled on wheels to rotate in fixed circular paths with rotating radius from the field center to the end of the line to be irrigated..... (9 Marks)
- 3) Natural refrigeration system is refrigeration system that produced by the use of natural ice. While, mechanical refrigeration system is refrigeration system that accomplished by means of refrigerating engines which operate on thermodynamic principles..... (6 Marks)

End of Questions, Wish You Good Luck;
Prof. Dr. A.E. Abou El-Magd