Uva Wellassa University
Faculty of Animal Science & Export Agriculture
Bachelor of Animal Science

Uva Wellassa University

End Semester Examination – July/August 2016
Year II Semester I

Agricultural Farm Mechanization (EAG 202-2)

Instructions

Answer all questions.

No. of questions	:	Two (02)
No. of pages	:	Two (02)
Time	:	One (1 hr) hour
Total marks allocated	:	50 %

Index No:

PART II - ESSAY

Question 01

Answer the following questions based on a milking machine and a milking unit.

1.1 Draw the schematic diagram of milk flow line and label its components. Briefly describe the function of each component. (30 marks)

1.2 Draw the cross sectional view of a milking unit and label the components. Briefly describe the function of each component. (30 marks)

1.3 Explain how milking takes place in the teat cup when vacuum is applied to it. Support your answer with vacuum pressure against time graph. (40 marks)

Question 02

2.1 Write four (04) main steps of calibration of a seed drill seeding machine. (15 marks)

2.2 Explain why seeding machine calibration is important before seeding. (15 marks)

2.3 Suppose a farmer purchased a new seed drill seeding machine and wants to do calibration. The seeding machine has two seed buckets and each has two seeding tubes. The seeding width of this seeder is 5 feet. During the calibration process 100 feet length of farm was seeded with the seeder. During the calibration test the collected seed weight from each seeding tube is given below in the table.

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Bag number	Seed weight (g)
1	12.5
2	13.0
3	12.7
4	13.6

The farmer has decided to cultivate tomato in his farm. In tomato seed packets which he bought the following information were there; germination percentage is 80 and pure seed percentage is 85. The recommended seeding rate for tomato is 5 lbs Percentage of Live Seed (PLS) per acre. Answer for the following questions based on the data given above.

a. Find out the Percentage of Live Seed (PLS). (10 marks)

b. Find out the actual seeding rate. (10 marks)

c. Calculate the average and total seed weight for seeding of 100 feet length. (10 marks)

d. Calculate the total area of seeding during the calibration. (10 marks)

e. Calculate the weight of seed needed for one acre land with this seeder. (10 marks)

f. Explain why there is a difference between the recommended level of seeding rate and final seeding rate. (20 marks)

Useful Unit Conversions:

1 lb = 454 grams

1 acre = 43,560 $feet^2$

1 feet = 30.48 cm