



SUPP. 2007/2008

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UNIVERSITY OF SWAZILAND

SUPPLEMENTARY EXAMINATION PAPER

PROGRAMME: BSc. in Agricultural Economics and Agribusiness

Management Year II
BSc. in Agricultural Education Year II
BSc. in Agronomy Year II
BSc. in Animal Science Year II
BSc. in Food Science, Nutrition and Technology Year II
BSc. in Home Economics Year II
BSc. in Home Economics Education Year II
BSc. in Horticulture Year II
BSc. in Land and Water Management Year II
BSc. in Textiles Apparel Design and Management Year II

COURSE CODE: AEM 201
TITLE OF PAPER: Elementary statistics.
TIME ALLOWED: 2:00 HOURS
INSTRUCTION: 1. ANSWER ANY FIVE QUESTIONS clearly and neatly.
2. Each question carries 20 marks

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1. State which of the following represent discrete data and which represent continuous data.

- a) Numbers of shares sold each day in the stock market
- b) Temperature recorded every half hour at a weather bureau.
- c) Lifetimes of television tubes produced by a company.
- d) Yearly incomes of college professors.
- e) Lengths of 1000 bolts produced in a factory.

2. If the class marks in a frequency distribution of the times taken to solve a problem are 128,137,146,155,164,173 and 182 second(s).

Find (a) the class-interval size

(b) the class boundaries.

3. The following data give the distribution of farmers experimenting new varieties of maize, bean ,potato, onion and garlic in rural Hhohho and Manzini.

	Maize	Bean	Potato	Onion	Garlic
Hhohho	25	21	25	79	1
Manzini	33	35	43	113	9

Display this data using proportional pie diagrams.

4. Given the following continuous frequency distribution

Weight(in gm)	No. of components
4.20 - 4.24	2
4.25 - 4.29	14
4.30 - 4.34	28
4.35 - 4.39	136
4.40 - 4.44	31
4.45 - 4.49	19
4.50 - 4.54	7
4.55 - 4.59	4

- a) State the common class width.
- b) Find the mid points of each class interval.
- c) Find the mean, the mode and the median weight of the Components.
- d) to what extent is the distribution skewed?

5. Find the
- a) arithmetic mean.
 - b) Geometric mean
 - c) Harmonic mean
 - d) Variance
 - e) Standard deviation
 - f) Coefficient of variation of the numbers 4, 5, 7 and 9.

6. The figure in the table give the wine consumption in a certain country in millions of gallons(y) of the year 1963 to 1972(x)

Years (x)	1963	1964	1965	1966	1967	1968	1970
Consumption(y)	32	37	41	46	44	45	53

- a) Draw a scatter diagram to show this data.
b) Determine the least square estimates of the regression line of y on x showing all your working. Draw this line on your scatter diagram and use to estimate the consumption for 1971?
7. box contains 5 red, 4 white and 6 blue balls which expect for their color are indistinguishable to find if a ball is drawn randomly from the bag, the probability that it is
- a) red
 - b) white
 - c) red or white
 - d) not white
 - e) neither red nor white
8. In *how many ways can 12 people be seated on a bench if only 3 seats are available?*