



MAASAI MARA UNIVERSITY

**REGULAR UNIVERSITY
EXAMINATIONS**

**2018/2019 ACADEMIC YEAR
FIRST YEAR SECOND SEMESTER**

**SCHOOL OF BUSINESS AND
ECONOMICS**

**BSc. IN HUMAN RESOURCE
MANAGEMENT**

COURSE CODE: BHR 1206

**COURSE TITLE: STATISTICS FOR
HRM**

DATE: 25/04/2019

TIME: 1100-1300 HRS

INSTRUCTION TO CANDIDATES

Answer Question **ONE** and any other **THREE** Questions

This paper consists of 4 printed pages. Please turn over.

Question one

a) Define the following terms:

i) Sample space

(1 mark)

ii) Type I error

(1 mark)

iii) Type II error

(1

mark)

iv) Hypothesis

(1

mark)

b) State two uses of index numbers.

(2

marks)

c) Write the conditions for a binomial distribution function. **(4**

marks)

d) A discrete random variable X has the following distribution

X=x	1	2	3	4	5
P(X=x)	a	0.30	0.10	0.20	b

i) If $E(X)=2.34$ find the values of a and b.

(2

marks)

ii) Find the variance of X.

(2

marks)

e) If 20% passes the sickle trait out of population of 5yrs old

school children, what is the standard error of the

population of sickle cell patients in repeated sample of

150 from this population at 95% confidence interval.

(3 marks)

f) A machine fills packets with spice which are supposed to

have a mean weight of 40 grams. A random sample of 36

packets is taken and the mean weight is found to be 42.4

grams with a standard deviation of 6 grams. Test the

hypothesis that there no difference in the means at 5% level of significance. **(7 marks)**

Question two

- a) Explain the uses of statistics in management. **(8 marks)**
- b) Write short notes on the following terms:
 - i) Sampling **(2 marks)**
 - ii) Observation **(2 marks)**
 - iii) Standard deviation **(3 marks)**

Question three

The following information was obtained from an NGO which was advancing small loans to some small-scale business enterprises in 2017. The loans are in the form of thousands of Ksh.:

Loans (in Kshs. '000'	No of enterprises
1 - 20	6
21 - 40	18
41 - 60	32
61 - 80	48
81 - 100	27
101 - 120	13
121 - 140	2

Required: Calculate the following

- a) Arithmetic mean. **(3 marks)**
- b) Median. **(3 marks)**
- c) Mode. **(4 marks)**
- d) Standard deviation. **(5 marks)**

Question four

- a) The following data was observed and it is required to establish if there exists a relationship between X and Y.

X	15	24	25	30	35	40	45	65	70	75
Y	60	45	50	35	42	46	28	20	22	15

Required

Compute the product moment coefficient of correlation(r) and give the interpretation of your answer. **(7 marks)**

- b) The following information was obtained from an exam that was done by a group of students at Maasai Mara University.

Marks	No. Students
46-50	48
51-55	53
56-60	58
61-65	63
66-70	68
71-75	73
76-80	78
81-85	83
86-90	88
91-95	93
Total	610

Required

Calculate the coefficient of skewness and hence comment briefly on the nature of the distribution of the loans.

(8 marks)

Question five

- a) Outline reasons why sampling is preferred other than census.

(4 marks)

- b) 80 students did an exam and the following results were obtained

Class	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89
Frequency	1	7	11	20	10	20	7	4

- i)** Draw a histogram and use it to estimate the mode.
(8marks)
- ii)** Comment on the nature of the distribution.
(3marks)

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