GARISSA UNIVERSITY

UNIVERSITY EXAMINATION 2016/2017 ACADEMIC YEAR ONE FIRSTSEMESTER EXAMINATION

SUPPLEMENTARY/SPECIAL EXAMINATION

SCHOOL OF BUSINESS MANAGEMENT AND ECONOMICS

FOR THE DIPLOMA BUSINESS MANAGEMENT

COURSE CODE: DBM O4

COURSE TITLE: QUANTITATIVE TECHNIQUES

EXAMINATION DURATION: 3 HOURS

DATE: 19/03/18 **TIME: 09.00-12.00 PM**

INSTRUCTION TO CANDIDATES

- **The examination has SIX (6) questions**
- **Question ONE (1) is COMPULSORY**
- **Choose any other THREE (3) questions from the remaining FIVE (5) questions**
- **Use sketch diagrams to illustrate your answer whenever necessary**
- **Do not carry mobile phones or any other written materials in examination room**
- **Do not write on this paper**

This paper consists of FOUR (4) printed pages ***please turn over***

QUESTION ONE (COMPULSORY)

(a) State any two measures of dispersion **[2 marks]**

(b) State any two types of correlation **[2 marks]**

(c) Highlight four uses or importance of index numbers to a Business Manager **[4 marks]**

(d) From the following data, construct the index for 2003 using 2000 as base year. Comment on your result. **[6 marks]**

Commodity	price 2000	price 2003
A	30	30
B	35	50
C	45	75
D	45	70
E	25	40

(e) Describe any four main characteristics of a Normal Distribution **[4 marks]**

(f) Find the first quartile Q1 and third quartile Q3 of the following set of data. **[6 marks]**

A	B	C	D	E	F	G	H	I	J
12	13	15	16	19	20	25	25	29	36

(g) Give two characteristics of binomial distribution. **[2 marks]**

QUESTION TWO

(a) Statistical inquiry is a process of transforming raw data into useful information that can tell us more about a subject and allow us to make recommendations and possibly make predictions of future outcomes. Discuss the six stage of statistical inquiry **[12 marks]**

(b) A container is packed with heavy (2B), medium (HB), fine (2H) and extra fine (3H) pencils. If a pack is chosen randomly from the container what is the probability that the pack chosen is medium. **[3 marks]**

QUESTION THREE

i. Calculate the coefficient of correlation for the following. **[12 marks]**

Husband age(x)	23	27	28	28	29	30	31	33	35
Wife age(y)	18	20	22	27	21	29	27	29	28

ii. distinguish regression and correlation **[3 marks]**

QUESTION FOUR

From the table below compute

Commodity	base year		current year	
	Price	**qnty**	**price**	**qnty**
A	4	3	6	2
B	5	4	0	4
C	7	2	9	2
D	2	3	1	5

i. Laspeyres index **[3 marks]**

ii. Paasche index **[3 marks]**

iii. Fishers index **[3 marks]**

iv. Marshall-edgeworth index **[3 marks]**

v. Dorbish-bowly index **[3 marks]**

QUESTION FIVE

(a) Using the following information:

	X	**Y**
Mean	8	10

Standard deviation 7 50/3

r =12/20

Required: Find

i. There regression coefficient of **X** on **Y** **[3 marks]**

ii. The regression coefficient of **Y** on **X** **[2 marks]**

iii. The most likely value of **Y** when **X**=100 **[2 marks]**

(b) Using the following information

X	2	3	4	5	6
Y	7	9	10	14	15

Find the regression equation of ***Y*** on ***X*** **[5 marks]**

(c) Distinguish between correlation and regression **[3 marks]**

QUESTION SIX

The table below shows the marks scored by students of DBM class in a CAT.

Marks scored	0-5	5-10	10-15	15-20	20-25	25-30
No of students	2	8	12	6	7	5

Required:

i. Calculate the modal mark **[3 marks]**
ii. The mean mark **[3 marks]**
iii. Median mark **[3 marks]**
iv. Variance **[3 marks]**
v. The standard deviation of marks **[3 marks]**