

**JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY**

**SCHOOL OF BUSINESS**

**BUSIA LC MAY - AUG SEM 2014**

**BACHELOR OF BUSINESS ADMINISTRATION (WITH IT)**

**ABA 206 BUSINESS STATISTICS BUSIA**

**2<sup>ND</sup> YEAR 1<sup>ST</sup> SEMESTER – 2014**

**Answer question 1(compulsory) and any other two questions**

Q1a) Explain the following terms as used in statistics;

- i) Nominal scale (2mks)
- ii) Qualitative data (2mks)
- iii) Continuous variable (2mks)
- iv) A parameter (2mks)
- v) Inferential statistics (2mks)

Q1b) The following data relates to the ages of students enrolled for masters degree course in the school of business in a University;-

72	35	49	37	25	25	38	70
63	42	51	40	39	20	35	41
51	39	27	31	38	63	64	72
23	35	46	48	39	56	67	69
31	28	42	51	55	48	37	49

**Required;-**

a) Make a frequency distribution beginning with the class 20-24 (6mks)

b) Use the distribution to compute ;-

- i) Mean (3mks)    ii) Median (3mks)    iii) Mode (3mks)    iv) Pearson coefficient of skewness (5mks)

Q2a) Explain four ways in which statistics can be misused (4mks)

Q2b) XYZ company sales and profit records for its 10 branches as follows;-

Branch Number	Sales £'000's = x	Profits £'000's = y
1	748	42
2	140	6
3	97	4
4	166	7
5	377	24
6	199	14
7	63	2
8	265	17
9	232	16
10	548	34

**Required**

- i) Pearson product moment correlation coefficient (14mks)  
ii) Interpret the findings in (i) above (2mks)

Q3 a) A loan Officer of a Commercial bank of Kenya knows that 5% of all loan applicants are bad risk, 92% of all loan applicants who are bad risks are also rated bad risks by a credit advising service and 2% of all loan applicants who are bad are rated bad risk by the service.

The probability that a loan applicant who is rated risk by service is virtually a bad risk? Use Bayes theorem to compute the probability that a loan applicant who is rated a bad risk by service is virtually a bad risk; (8 mks)

Q3 b)The data relates to marks scored by BBA 100 students in a university campus.

Marks	Frequencies
11-20	4
21-30	16
31-40	27
41-50	32
51-60	15
61-70	4
71-80	2
	<b>100</b>

**Required**

- i) Interquatile range i.e  $Q_3 - Q_1$  (4mks)
- ii) The 8<sup>TH</sup> decile (2mks)
- iii) The 60<sup>th</sup> percentile (2mks)
- iv) Explain the limitations of measures ;-  
Range and standard deviation (4mks)

Q4a) What are the limitations of statistics (4mks)

b) Farmers incomes from 2 crops grown single stand in the same location were distributed as follows;

Earnings $y=€$	Number of farmers	
	TEA	COFFEE
1000	600	1500

1200	800	1000
1400	1200	1100
1600	900	900
2000	1000	300
2800	500	200

**REQUIRED;-**

- a) Process the data into cumulative% and then use your findings to plot the appropriate curves using origin  $(100^x, 0^y)\%$  (10mks)
- b) Comment on the income earned by the lowest 80% of the farmers of the 2 crops(3mks)
- c) Comment on the suitability of the curves in measuring dispersion (3mks)

Q5 a) What is the role of Business statistics (4mks)

b)The number of study hours (x) spent by 8 students in 30 days and the final score in business students (y) were;-

Sample students	Study hours (x)	Exam score (y)
1	20	54
2	16	51
3	34	74
4	23	60
5	27	78
6	32	82
7	18	62
8	22	67

**Required**

- a) Regression line equation (12mks)
- b) Use the line in (a) to estimate the score when the study hours are 30 hours.  
(4mks)