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

**UNIVERSITY EXAMINATIONS FOR DIPLOMA COURSE IN BUSINESS ADMINISTRATION**

**2nd YEAR, 1st SEMESTER EXAMINATION FOR 2015/16 ACADEMIC YEAR**

**KENDU BAY LEARNING CENTRE**

**COURSE CODE: BBM 2216**

**COURSE TITLE: STATISTICS AND QUANTATIVE METHODS IN BUSINESS STUDIES.**

**INSTRUCTIONS:**

**1. Answer question ONE and any other two**

**2 . Candidate are advised not to write on the question paper.**

**3. Candidates must hand in their answer booklet to the invigilator before leaving the exam room**

**Q 1**. a) Define statistics **(5marks**)

b) State five functions of statistics **(5marks)**

c) What is the difference between inferential statistics and descriptive statistics **(5marks)**

d) State the measures of dispersion **(5marks)**

d) Explain the following concepts as used in statistics **(10 marks**)

 i) Population

 ii) Parameter

 iii) Variable

**Q2** a) Distinguish between mean, mode and median **(10 marks)**

b) Calculate the mean and standard deviation from the data below **(10 marks)**

**Scores** 6 7 8 9 10 11 12

**Frequencies**  3 6 9 13 8 5 4

**Q3**. Given the following data.

 **X** 2 3 5 6 8 9

 **Y** 6 5 7 8 12 11

1. Calculate the pearson’s moment correlation coefficient **(10 marks)**
2. Draw a scatter diagram **(7 marks)**
3. Comment on the relationship between **x** and **y**  **(3 marks)**

**Q4**.a) State the procedure in computing chi- square test **(10 marks)**

b) Quinne was administered to 812 persons out of 3248 patients. The number of fever cases is given bellow.

**Treatment**  **Fever No fever Total**

Quinne 20 792 **812**

No Quinne 220 2216 **2436**

**Total 240 3008 3248**

With the help of chi- square test , test the usefulness of quinne in checking malaria.

The chi-square value at 5% level of significance for 1 degree of freedom is 3.84. **(10 marks)**

**Q5**.a) Give at least five uses of index numbers **(10 marks)**

b) Calculate the index number of crime for 2009 with 2008 as the base. **(10 marks )**

 **2008**  **2009**   **weight**

**Robberies** 13 8 6

**Car theft** 15 22 5

**Motor cycle theft** 249 185 4

**Pick pockets** 328 259 1

**Theft by servants** 497 448 2