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

**SCHOOL OF EDUCATION**

**UNIVERSITY EXAMINATION FOR THE DEGREE OF BACHELOR OF EDUCATION ARTS WITH IT**

**1ST YEAR 2ND SEMESTER 2015/2016 ACADEMIC YEAR**

**KISII CAMPUS REGULAR**

**COURSE CODE: SMA 104**

**COURSE TITLE: DESCRIPTIVE STATISTICS**

**EXAM VENUE: STREAM: (BED ARTS)**

**DATE: EXAM SESSION:**

**TIME: 2 HOURS**

**Instructions:**

1. **Answer Question ONE (COMPULSORY) and ANY other 2 questions**
2. **Candidates are advised not to write on the question paper.**
3. **Candidates must hand in their answer booklets to the invigilator while in the examination room.**

**QUESTION ONE**

1. Define the following terms:
2. Descriptive statistics(2mks)
3. Qualitative variable and quantitative variable(2mks)
4. Primary data and secondary data (2mks)
5. i)Describe survey as a method of data collection (2mks)

ii) Explain the three steps you would follow when carrying out a survery (6mks)

 iii)In descriptive statistics, explain the three primary methods of obtaining a survery research (6mks)

1. A student carried out a research and came up with the following raw data

12,36,40,30,28,20,19,10,10,16,19,27,15,26,20,19,7,45,33,21,26,37,6,20,11,17,37,30,20,5

With class interval of six, prepare a distribution table showing

1. A tallies column for the data(3mks)
2. A frequency column for the data(3mks)
3. In statistics, give four advantages of this method of data presentation (4mks)

**QUESTION TWO**

1. Group the data below taking a class interval of:
2. 5 inclusive form (6mks)
3. 5 exclusive form (6mks)

Data: 4,3,1,7,9,21,13,15,18,17,14,10,12,16,7,6,19,22,11,23,22,3,4,3,2.

1. Data was collected and presented as below:

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Marks | 0-10 | 10-20 | 20-30 | 30-40 | 40-50 | 50-60 | 60-70 | 70-80 | 80-90 | 90-100 |
| Frequency | 15 | 17 | 19 | 25 | 16 | 15 | 13 | 10 | 5 | 2 |

1. Present it in a histogram form (5mks)
2. Present it in frequency polygon form(3mks)

**QUESTION THREE**

1. i)Explain two significance of dispersion (4mks)

ii)A good measure of dispersion has four properties.State them(4mks)

1. Consider the data: 200,210, 208, 160, 200, 250. Find the coefficient of the range as a measure of dispersion (3mks)
2. Consider the data: 20, 28, 40, 12,30,15, 50.

Find

1. The value of the quartile deviation (6mks)
2. The coefficient of quartile deviation (3mks)

**QUESTION FOUR**

1. Consider the data below:

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| marks | 10-20 | 20-30 | 30-40 | 40-50 | 50-60 | 60-70 |
| No. Of studensts | 12 | 19 | 5 | 10 | 9 | 5 |

1. Find the quartile deviation (8mks)
2. The coefficient of quartile deviation(3mks)

b)Given the data below, use a pie chart to display the information(9mks)

|  |  |  |  |
| --- | --- | --- | --- |
|  | 2006 | 2007 | 2008 |
| Clothing (Kshs. In millions) | 1.7 | 1.4 | 1.4 |
| Furniture (Kshs. In millions) | 3.4 | 4.9 | 5.6 |
| Electrical goods (Kshs. In millions) | 0.2 | 0.4 | 0.5 |
| Total (Kshs. In millions) | 5.3 | 6.7 | 7.5 |

**QUESTION FIVE**

1. Consider the data below in kshs. 3000, 4000, 4200,4400, 4600,4800, 5800.

Calculate:

1. The mean (3mks)
2. The mean deviation(5mks)
3. The coeffiecient of mean deviation (3mks)
4. i)In descriptive statistics, usually the questionnaire design can be split into three elements.state them.(3mks)

ii)Explain six steps of designing a questionnaire (6mks) (Kshs. In millions)