The Co-operative University of Kenya

END OF SEMESTER EXAMINATION AUGUST -2018

EXAMINATION FOR THE CERTIFICATE IN CO-OPERATIVE MANAGEMENT (YR I SEM II)

UNIT CODE: CCM 1116

UNIT TITLE: INTRODUCTION TO STATISTICS

DATE: 27TH AUGUST, 2018   **TIME: 9:00 AM – 11:00 AM**

INSTRUCTIONS:
- Answer question **ONE (compulsory)** and any other **TWO** questions

QUESTION ONE
(a) Distinguish between descriptive and inferential statistics.   (4 Marks)
(b) Explain any THREE benefits of statistics in co-operative business.   (6 Marks)
(c) Distinguish between primary and secondary data.   (4 Marks)
(d) Describe any TWO methods of data collection indicating one advantage and one disadvantage of each method.   (6 Marks)
(e) How is a histogram different from a bar chart?   (6 Marks)
(f) There are two branches of a company employing 100 and 80 employees respectively. If the arithmetic mean of the monthly salaries paid by the TWO branches are $4570 and $ 6750 respectively. Find the arithmetic mean of the salaries of the employees of the company put together.   (4 Marks)

QUESTION TWO
(a) Distinguish between measures of central tendency and measures of dispersion.   (4 Marks)
(b) Explain TWO ways in which statistics may be misused.   (4 Marks)
(c) Calculate the arithmetic mean of the following data
    130,   135,   140, 145, 146, 148, 150   (4 Marks)
(d) Find the media mean and mode from the following data.   (8 Marks)

Marks	0 - 10	10 - 20	20 - 30	30 - 40	40 - 50	50 - 60	60 - 70	70 -80
No. of Students	2	18	30	45	35	20	6	3

QUESTION THREE
(a) Distinguish between stratified and random sampling.   (4 Marks)
(b) State any FOUR measures of dispersion   (4 Marks)
(c) Describe the research process   (10 Marks)
(d) Differentiate between probabilistic and non probabilistic methods of sampling.   (2 Marks)

QUESTION FOUR
(a) Define the term skewness.   (2 Marks)
(b) Explain the qualities of a good average   (6 Marks)
(c) The following data 58, 32, 41, 47, 56, 80, 42, 29, 32, 78
    Calculate
    Mean   (3 Marks)
    Variance   (6 Marks)
    SD   (3 Marks)

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QUESTION FIVE

(a) Calculate Q1, Q3, D7, P85 from the following data. (12 Marks)

Earning (sh. 000's)	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
No. of employees	3	6	10	15	24	42	75	90	79	55	36	26	19	13	7

(b) Give the advantages of using the following types of averages.
    Mean (3 Marks)
    Median (2 Marks)
    Mode (3 Marks)