GRETSA UNIVERSITY - THIKA

UNIVERSITY EXAMINATIONS

MAY-AUGUST 2023 SEMESTER

DIPLOMA IN BUSINESS MANAGEMENT

COURSE CODE: DBCC 016

COURSE TITLE: ESSENTIALS OF BUSINESS STATISTICS

DATE: 04 AUGUST 2023   **TIME: 8.00 AM – 11.00 AM**

<u>INSTRUCTIONS TO CANDIDATES</u>

1. SECTION A IS **COMPULSORY.**
2. SECTION B: ANSWER ANY OTHER **THREE** QUESTIONS.
3. **<u>DO NOT</u>** WRITE ANYTHING ON THIS QUESTION PAPER AS IT WILL BE AN EXAM IRREGULARITY.
4. ALL ROUGH WORK SHOULD BE AT THE BACK OF YOUR ANSWER BOOKLET AND CROSSED OUT.

CAUTION: All exam rooms are under CCTV surveillance during the examination period.

SECTION A: COMPULSORY
Question One
a) Define the term statistics. **[2 Marks]**
b) Kenya National Bureau of Statistics acts as the principal agency of the Government for collecting, analysing and disseminating statistical data in Kenya. Discuss **five** uses of statistics. **[10 Marks]**
c) Secondary data is the data that has already been collected through primary sources and made readily available for researchers to use for their own research. Discuss any **five** sources of secondary data. **[10 Marks]**
d) Business statistics elaborates on the standard of making a diagram by following certain principles or guidelines. Explain **four** principles of constructing a diagram in business statistics. **[8 Marks]**
e) The age of 20 students taking a course in statistics is as follows:
24, 30, 28, 27, 29, 26, 26, 29, 30, 30, 28, 28, 29, 26, 28, 27, 28, 29, 28, 28

Required:
Construct a grouped frequency distribution for the given data. **[10 Marks]**

SECTION B: ANSWER ANY THREE QUESTIONS
Question Two
a) Using a diagram, distinguish a bar graph from a pie chart. **[4 Marks]**
b) The following are the annual returns on a given asset realized between 2005 and 2015. 12% 13% 11.5% 14% 9.8% 17% 16.1% 13% 11% 14%. Calculate the population mean, mode and median **[6 Marks]**
c) Describe the concept descriptive statistics. **[4 Marks]**
d) Explain **three** main types of descriptive statistics. **[6 Marks]**

Question Three
a) Consider the data given below to answer the questions that follow:

Observations (x)	0	1	2	3	4	5	6	7	8
Frequency (f)	1	9	26	59	72	52	29	7	1
Cumulative Frequency (cf)	1	10	36	95	167	219	248	255	256

   i) Compute the range **[3 Marks]**
   ii) Compute mean deviation **[5 Marks]**
b) Define the term sampling and highlight the **two** categories of sampling. **[4 Marks]**
c) Observe the data provided below and calculate the standard deviation. **[8 Marks]**
5,2,16,22,17,8,20,11,23,16,25,26,23,16,10,1,7

Question Four

a) The data below shows the weights in kilograms of students in a business class.

Data: 52, 60, 28, 72, 92, 62, 62, 48, 92, 70, 82, 82, 92, 62, 82, 72, 83, 90, 72, 64

Present the data in a complete frequency chart. **[10 Marks]**

b) Correlation is a statistical technique that can show whether and how strongly pairs of variables are related. Explain any **four** types of correlation in relationship.

[8 Marks]

c) Define the term index number as used in this course. **[2 Marks]**

Question Five

a) The approach of data collection is different for different fields of study. Discuss the relevance of collecting data. **[12 Marks]**

b) Highlight **four** common methods of sampling. **[4 Marks]**

c) List any **four** uses of index numbers in statistics. **[4 Marks]**