NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY

FACULTY OF COMMERCE

BACHELOR OF COMMERCE (HONS) DEGREE

QUANTITATIVE ANALYSIS FOR BUSINESS II [CIN 1207]

SUPPLEMENTARY EXAMINATION   OCTOBER 2009

DURATION   3 HOURS

Instructions to candidates

Choose and answer five(5) out of six(6) questions

Graph paper will be provided on request

QUESTION 1

Define the following terms:

A.

  i) MODE
  ii) MEDIAN
  iii) PERCENTILE
  iv) QUARTILE
  v) RANGE
  vi) INTERQUARTILE RANGE   **[12 marks]**

 B. Find the mean, median , mode and range of the following ungrouped data series, showing relevant formulae, as appropriate:

       2, 3,5,6,4,7,3,8, 3,9   **[8 marks]**

                                                                Total[20 marks]

QUESTION 2

   The IQ scores for a sample of 24 students who are entering their first year of high school are:

   115   119   119   134

   121   128   128   152

   97   108   98   130

   108   110   111   122

   106   142   143   140

141   151   125   126

a) Construct a frequency distribution table starting at 96-102; 103-109; etc **[7 marks]**

b) Construct a cumulative percentage graph.   **[7 marks]**

c) What proportion of scores are below 120?   **[3 marks]**

d) What proportion of scores are above 140?   **[3 marks]**

Total[20 marks]

QUESTION 3

The following is a frequency distribution table of speed in miles per hour in respect of a random sample of 50 cars, recorded by the highway patrol.

Speed(m/hr)	frequency
40-44	1
45-49	3
50-54	6
55-59	5
60-64	8
65-69	15
70-74	6
75-79	4
80-84	2

i)   Find the Mean for the distribution of speed in miles/hour.   **[5 marks]**
ii) Find the standard deviation and variance   **[5 marks]**
iii) What is the median speed?   **[5 marks]**
iv) What is the 40th Percentile?   **[5 marks]**
Total[20 marks]

QUESTION 4

List 4 methods of data collection, stating the advantages and disadvantages of each

Total[20 marks]

QUESTION 5

List 4 methods of sampling stating the advantages and disadvantages of each.

QUESTION 6

Using diagrams, illustrate the concept of skewness.