



ATD LEVEL II

DCM LEVEL II

**BUSINESS MATHEMATICS AND STATISTICS**

TUESDAY, 24 November 2020.

Time Allowed: 3 hours.

Answer ALL questions. Marks allocated to each question are shown at the end of the question. Show ALL your workings.

**QUESTION ONE**

(a) Highlight four data collection methods. (4 marks)

(b) The data below shows the performance of 144 students (in %) in a Business Statistics examination at Bidii College:

Marks (%)	Number of students
0 – 10	5
10 – 20	8
20 – 30	15
30 – 40	18
40 – 50	20
50 – 60	32
60 – 70	23
70 – 80	12
80 – 90	9
90 – 100	2

**Required:**

(i) Construct a “less than” Ogive curve to represent the above data. (5 marks)

(ii) Determine the median mark from the Ogive curve in (b) (i) above. (2 marks)

(iii) Determine the quartile deviation from the Ogive curve in (b) (i) above. (3 marks)

(c) The average retail prices (in thousands of shillings) of wheat sold by Kilimo Industries (in tonnes) during the years 2014 - 2019 are given in the table below:

Year	Average retail price per tonne
	Sh.“000”
2014	14.95
2015	14.94
2016	15.10
2017	15.65
2018	16.28
2019	16.53

**Required:**

(i) Using 2017 as the base, compute the price relatives corresponding to the years 2014 to 2019. (3 marks)

(ii) Highlight three applications of the consumer price index. (3 marks)

**(Total: 20 marks)**

