



Professional Qualification in COMPUTING AND INFORMATION SYSTEMS

Level 4 Diploma

UNIT 4 – INFORMATION PRESENTATION AND ANALYSIS

Question 1

(a) **State** what is meant by the term 'interquartile range'. (4 marks)

A business surveyed 99 staff to find out how many telephone calls they made in a day. The results were:

Number of calls	Number of staff
0	2
1	10
2	27
3	35
4	11
5	9
6 or more	5

(b) **State** the mode and the median number of calls made. (4 marks)

(c) **Calculate** the lower quartile, the upper quartile, and the interquartile range. (12 marks)

Question 2

(a) **State** what is meant by the term 'normal distribution'. (4 marks)

(b) **Describe** the main types of probability distributions. (8 marks)

(c) **Explain** how inference is used as a tool in making statistical judgements. (8 marks)

Question 3

(a) **State** what is meant by a 'histogram'. (4 marks)

(b) **Explain** the difference between discrete data and continuous data. (4 marks)

(c) **Draw** and label a bar chart to illustrate the survey results in Question 1(b) above. (12 marks)

Question 4

(a) **Explain** the differences in interpreting the mean average under different distributions. (10 marks)

(b) Describe the common assumptions associated with parametric and non-parametric statistics.
(10 marks)

Question 5

Explain the advantages and disadvantages of different methods of research through experiments, surveys, interviews and observations. (20 marks)