



Professional Qualification in COMPUTING AND INFORMATION SYSTEMS

Level 4 Diploma

UNIT 4 – INFORMATION PRESENTATION AND ANALYSIS

Question 1

- (a) **Calculate** the mean, median and mode for the following data: 4, 6, 2, 8, 6. Show your working and all formulae used. (4 marks)
- (b) **Calculate** the variance and standard deviation for the following data: 4, 6, 2, 8, 6. Show your working and all formulae used. (6 marks)
- (c) **Illustrate** a box-plot using the following data: 3, 6, 7, 2, 9, 3, 8, 4, 1, 7. Use a diagram to support your answer. (10 marks)

Question 2

- (a) **State** what is meant by the term 'interval'. (2 marks)
- (b) **Explain TWO** limitations of interval data. (6 marks)
- (c) **Explain why** the t-test should or should not be applied to interval data. (12 marks)

Question 3

Recommend an appropriate diagram to communicate a correlation between age and customer satisfaction. (20 marks)

Question 4

- (a) **State** what is meant by the term 'kurtosis'. (2 marks)
- (b) **Describe** data with excess kurtosis. (6 marks)
- (c) **Explain** the implications of using the mean average to describe data with excess kurtosis. (12 marks)

Question 5

Compare TWO empirical approaches to investigate attitudes towards the design of a new product. (20 marks)