



# 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: 7, 5, 9, 2, 4, 3, 5. Show your working and all formulae used. (4 marks)
- (b) **Calculate** the variance and standard deviation for the following data: 7, 3, 9, 2, 4. Show your working and all formulae used. (6 marks)
- (c) **Illustrate** a box-plot using the following data: 5, 8, 3, 4, 1, 8, 6, 3, 9, 5. Use a diagram to support your answer. (10 marks)

#### Question 2

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

#### Question 3

**Compare** the advantages and disadvantages of **TWO** different formats for presenting data. Use examples and/or diagrams to support your answer. (20 marks)

#### Question 4

- (a) **Describe** the properties and/or characteristics of data that contains outliers. (8 marks)
- (b) **Explain** the implications of using the mean average to describe data that contains outliers. (12 marks)

#### Question 5

**Illustrate** the key differences between qualitative and quantitative measurement and their implications for effective research. Use examples to support your answer. (20 marks)