



Professional Qualification in COMPUTING AND INFORMATION SYSTEMS

Level 4 Diploma

UNIT 4 – INFORMATION PRESENTATION AND ANALYSIS

Question 1

- (a) **Explain** what is meant by the term 'standard deviation'. (4 marks)
- (b) **Calculate** the standard deviation using the following data set: 1, 1, 3, 3, 4, 4, 4, 4. Show your calculations. (12 marks)
- (c) **Explain** the difference between the population standard deviation **and** sample standard deviation. (4 marks)

Question 2

Compare how piloting testing assesses the validity of an instrument design with how cognitive testing assesses the reliability of an instrument design. (20 marks)

Question 3

- (a) **Explain TWO** situations when it is useful to present data using 'scattergrams'. (10 marks)
- (b) **Draw ONE** bar chart for the following data: 1, 3, 4, 4, 4, 4, 3, 1. (10 marks)

Question 4

- (a) **Explain** the difference between mode, mean and median averages. (6 marks)
- (b) **Explain** the relevance of calculating the mean for ordinal data. (6 marks)
- (c) **Calculate** the median using the following data set: 1, 1, 3, 3, 4, 4, 4, 4. Show your calculations. (8 marks)

Question 5

- (a) **Explain ONE** way in which declining balance depreciation is calculated. (10 marks)
- (b) **Explain ONE** way in which the salvage value of an asset is calculated. (10 marks)