



Professional Qualification in COMPUTING AND INFORMATION SYSTEMS

Level 4 Diploma

UNIT 4 – INFORMATION PRESENTATION AND ANALYSIS

Question 1

(a) **State** the meaning of the σ symbol. (2 marks)

(b) The following data are a random sample of exam scores:

2, 4, 5, 6, 8

Calculate the mean **and** median. **Show** your calculations. (10 marks)

(c) **Suggest why** the mode is often the **least** appropriate average to use to represent a set of data. **Justify** your answer. (8 marks)

Question 2

(a) **Explain how** interviews are used to collect research data. (8 marks)

(b) **Compare TWO** advantages of open-ended with **TWO** advantages of closed-ended questions. (12 marks)

Question 3

(a) **Draw** a pie-chart showing **THREE** classes with the following proportions: 1:4:2:3 (4 marks)

(b) **Compare** the relative merits of using absolute numbers **or** percentages when presenting information. (8 marks)

(c) **Suggest** whether absolute numbers **or** percentages are the **most** appropriate way of presenting data to audiences unfamiliar with statistics. **Justify** your answer. (8 marks)

Question 4

(a) **Describe** the type of information presented in a balance sheet **and** in a capital statement. (8 marks)

(b) **Illustrate** the differences between gross, operating, and net profit margins. Use diagrams and examples to support your answer. (12 marks)

Question 5

(a) **Explain** the properties of the 'normal' distribution. (8 marks)

(b) **Explain** what is meant by the central limit theorem. (12 marks)