



Professional Qualification in COMPUTING AND INFORMATION SYSTEMS

Level 4 Diploma

UNIT 2 – COMPUTER PROGRAMMING

Question 1

- (a) **Explain** what is meant by the term 'interpreted programming language'. (4 marks)
- (b) **Explain why** an interpreted programming language may be used. (8 marks)
- (c) **Explain why** interpreted programming languages are generally more portable than compiled programming languages. (8 marks)

Question 2

- (a) **Describe** what a function is. (2 marks)
- (b) **Explain how** functions are used in computer programs. (6 marks)
- (c) **Compare THREE** differences between a recursive and an iterative implementation of a function. (12 marks)

Question 3

- (a) **State** what an abstract class is. (2 marks)
- (b) **Explain** the difference between an abstract and a concrete class. (6 marks)
- (c) **Illustrate** dynamic dispatch. Use diagrams and/or examples to support your answer. (12 marks)

Question 4

- (a) **Explain** what WIMP environment is. (4 marks)
- (b) **Explain** the difference between GUI and CLI. (8 marks)
- (c) **Explain why** GUI application code written to a synchronous design is problematic. (8 marks)

Question 5

Write the pseudocode for finding the sum of values stored in an array. (20 marks)