



Professional Qualification in COMPUTING AND INFORMATION SYSTEMS

Level 4 Diploma

UNIT 2 – COMPUTER PROGRAMMING

Question 1

- (a) **State** the main paradigm of the 'C' programming language. (2 marks)
- (b) **Describe TWO** features of C. (6 marks)
- (c) **Compare** the suitability of C and Python for implementing office applications. (12 marks)

Question 2

- (a) **State** the meaning of the term 'String'. (2 marks)
- (b) **Describe how** String variables are used in computer programs. (6 marks)
- (c) **Explain how** String variables in an array can be used to form a composite data type. (12 marks)

Question 3

- (a) **State** the meaning of the term 'control unit'. (2 marks)
- (b) **Describe** the role of the control unit in a CPU. (6 marks)
- (c) **Illustrate** the role of the control unit in the fetch-execute cycle. Use diagrams and/or examples to support your answer. (12 marks)

Question 4

Illustrate an algorithm to find the lowest value in the set {6,1,2,3} using a flow chart and trace table. Use diagrams and/or examples to support your answer. (20 marks)

Question 5

Illustrate TWO advantages of encapsulation in object-orientated programs. Use diagrams and/or examples to support your answer. (20 marks)