



Professional Qualification in COMPUTING AND INFORMATION SYSTEMS

Level 4 Diploma

UNIT 2 – COMPUTER PROGRAMMING

Question 1

- (a) **State** what is meant by the term 'HyperText Markup Language' (HTML). (4 marks)
- (b) **Describe** the strengths and weaknesses of using HTML. (8 marks)
- (c) **Explain** the factors to consider when choosing a language for a particular task. (8 marks)

Question 2

- (a) **State** what is meant by the term 'composite data type'. (4 marks)
- (b) **Describe** examples of how composite data types are used in applications. (8 marks)
- (c) **Explain** the advantages and disadvantages of different data structures. (8 marks)

Question 3

- (a) **State** what is meant by the term 'machine code'. (4 marks)
- (b) **Describe** the differences between machine code and source code. (8 marks)
- (c) **Explain** how instructions are executed in CPU architecture. (8 marks)

Question 4

- (a) **State** what is meant by the term 'code tracing'. (4 marks)
- (b) **Describe** the use of flow charts and pseudo-code to describe algorithms. (8 marks)
- (c) **Explain** how a trace table can be used to develop software. (8 marks)

Question 5

Explain the key concepts and constructs of using an Object-Orientated Language, and the main benefits to developers. (20 marks)