



**Professional  
Qualification in**

**COMPUTER ENGINEERING**

**Level 4 Diploma**

**UNIT 1 – COMPUTER SYSTEMS**

**Question 1**

- (a) **Describe** the possible functions of a computer system in a home environment. (10 marks)
- (b) **Illustrate** how computers are used as embedded controllers in special-purpose devices. (10 marks)

**Question 2**

- (a) **State** what is meant by the term 'utility program'. (4 marks)
- (b) **Describe** how utility programmes can be used to improve the efficiency of a computer system. (8 marks)
- (c) **Explain** how storage media is used in a computer system. (8 marks)

**Question 3**

- (a) **Explain** how to conduct a needs analysis when designing a computer system. (10 marks)
- (b) **Describe** how 'dry runs' are used in the computer design process. (10 marks)

**Question 4**

**Illustrate**, with the use of examples, the process of building and configuring a computer system to meet a design specification. (20 marks)

**Question 5**

- (a) **Describe** how to perform routine maintenance tasks on a computer system. (10 marks)
- (b) **Describe** how to install and configure a new hard drive. (10 marks)