



Professional Qualification in
COMPUTER ENGINEERING
Level 4 Diploma

UNIT 2 – COMPUTER SECURITY

Question 1

- (a) **Describe** the function of a firewall. (4 marks)
- (b) **Compare TWO** advantages of installing a firewall. (16 marks)

Question 2

- (a) **Explain** what is meant by the term 'SQL injection'. (4 marks)
- (b) **Explain TWO** ways in which an SQL injection can be used to gain control of an account on a website. (8 marks)
- (c) **Explain TWO** ways to prevent 'SQL injections'. (8 marks)

Question 3

Compare the relationship between 'phishing' and 'cross-server scripting'. (20 marks)

Question 4

- (a) **Explain** the meaning of the terms 'password' and 'weak password'. (4 marks)
- (b) **Explain** why it is important to have strong passwords. (4 marks)
- (c) **Illustrate THREE** bad practices associated with weak passwords. Use diagrams and/or examples to support your answer. (12 marks)

Question 5

- (a) **Explain** what is meant by the term 'Trojan'. (4 marks)
- (b) **Suggest ONE** attack vector which could be used to deploy a virus using a Trojan. Justify your answer. (16 marks)