



**Professional Qualification in**  
**COMPUTER ENGINEERING**  
**Level 4 Diploma**

**UNIT 2 – COMPUTER SECURITY**

**Question 1**

- (a) **Explain** what is meant by the term 'SQL injection'. (4 marks)
- (b) **Explain how** 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'. **Justify** your answer. (8 marks)

**Question 2**

- (a) **Outline** the process of 'distributed denial of service' attack. (4 marks)
- (b) **Explain TWO** ways in which 'zombie' code is used to facilitate a 'denial of service' attack. (16 marks)

**Question 3**

- (a) **Describe** what is meant by the terms 'virus' **and** 'trojan'. (4 marks)
- (b) **Recommend ONE** effective attack vector which could be used to deploy a virus using a trojan. **Justify** your answer. (16 marks)

**Question 4**

- (a) **Describe** the symptoms associated with successful spyware attacks. (8 marks)
- (b) **Differentiate** between **how** a firewall **and** a scanner protect computer systems from spyware attacks. (12 marks)

**Question 5**

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