



Professional Qualification in COMPUTER ENGINEERING Level 4 Diploma

UNIT 2 – COMPUTER SECURITY

Question 1

- (a) In the context of computer security, **explain** what is meant by the term 'buffer overflow attack'. (8 marks)
- (b) **Describe** the possible impact software vulnerabilities may have on a computer system. Use examples to support your answer. (12 marks)

Question 2

- (a) **State** what is meant by the term 'password cracking'. (6 marks)
- (b) **State** what is meant by the term 'man-in-the-middle attack'. (6 marks)
- (c) **Explain** how a network sniffer works. (8 marks)

Question 3

Identify FOUR types of malware that may be used to attack a computer system and **explain** how each works. (20 marks)

Question 4

- (a) **Explain** how anti-virus software provides a computer installation with protection from attack. (10 marks)
- (b) **Describe** the role of an intrusion detection system and its function in providing protection. (10 marks)

Question 5

- (a) **State** what is meant by the term 'spam'. (6 marks)
- (b) **State** what is meant by the term 'phishing'. (6 marks)
- (c) Using **ONE** example, explain how spam can threaten the security of a computer system. (8 marks)