



Professional Qualification in COMPUTER ENGINEERING Level 4 Diploma

UNIT 2 – COMPUTER SECURITY

Question 1

- (a) **State** what is meant by the term 'software bug'. (4 marks)
- (b) **Describe** how a software bug might introduce vulnerabilities into a user's software. (8 marks)
- (c) **Explain** how a buffer overflow attack can introduce possible vulnerabilities. (8 marks)

Question 2

- (a) **Assess** the risks to computer users of attacks using tracking cookies and keystroke loggers. (10 marks)
- (b) **Describe** how Trojans are used to attack computer systems. (10 marks)

Question 3

- (a) **Describe** the typical symptoms of a software attack on a computer system. (10 marks)
- (b) **Explain** why email is a common attack vector. (10 marks)

Question 4

Describe FOUR techniques used to protect computer systems against software attacks by third parties. (20 marks)

Question 5

- (a) **State** what is meant by the term 'scam email'. (4 marks)
- (b) **Describe** the features of **TWO** types of system configuration attack. (8 marks)
- (c) **Explain** how social engineering is used to target specific individuals. (8 marks)