Section 3: Cryptography (Answer ALL questions) [10 marks]

7. What is Cryptography primarily used for? b) Securing communication 8. Which of the following is a type of symmetric encryption? b) AES 9. Which of these is an asymmetric encryption algorithm? c) RSA 10. What is the key difference between symmetric and asymmetric encryption? a) Symmetric uses one key; asymmetric uses two keys 11. Which of these is NOT a hashing algorithm? c) Blowfish 12. Which cryptographic attack exploits predictable key generation? d) Weak key attack 13. Which factor makes an encryption algorithm post-quantum secure? c) Resistance to Shor's algorithm 14. Which of the following helps mitigate replay attacks? b) Using nonces and timestamps 15. Which algorithm is primarily used for email encryption? a) PGP 16. What is a quantum-safe cryptographic algorithm?

a) An encryption method that is immune to quantum computing attacks