8	(a)	Describe the purpose of the Secure Sockets Layer (SSL) and Transport Layer Security (TLS) protocols.
		[2]
	(b)	Explain how SSL/TLS protocols are used when a client-server communication is initiated.
		[4]

A m	iessa	age is to be sent securely. Software uses a key to encrypt the message before it is se	nt.
(a)	(i)	Give two reasons for using key cryptography.	
		1	
		2	
			[2]
	(ii)	Give two methods of key cryptography that can be used.	
		1	
		2	
			[2]
(b)	Wh	en there is a secure exchange of key(s), the message is sent.	
	The	use of quantum cryptography is being considered for the secure exchange.	
	(i)	State two possible benefits of using quantum cryptography.	
		1	
		2	
		2	
			[2]
	(ii)	State two possible drawbacks of using quantum cryptography.	
	` '	1	
		2	

8

6	A m	essage is encrypted using a private key and sent to an individual using asymmetric encryption.
	(a)	State what is meant by a private key .
		[2]
	(b)	Describe the process of asymmetric encryption.
		[2]

(c)	Explain how a digital signature is used to verify a message when it is received.
	[4]