



12 Pages

1. Please give the information requested in the boxes below.
2. Enter your name in the space provided to the right, fold over and seal down (using the label provided) to hide your name.
3. The answers must be legibly written. The Examiners can either ignore illegible script or have it typed and the expense of typing charged to the candidate.
4. Write your answers in ink.
5. Begin each answer on a fresh page. Do all rough work in the answer book and cross it through.
6. No part of this book is to be torn out; it must be handed in complete.
7. If more books than one are used, fasten them together using the tags available from the invigilator(s).
8. **Every book must be handed in. In no circumstances may answer books, used or unused, be taken out of the examination venue.**

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FORENAME(S): TANVEER

1	Student Number	1303976
2	Title of Examination Paper	Wide Area Network
3	Module Code	CSAC6002-LON
4	Date and Time of Examination	12/01/18
5	Examination Venue	L42
6	Seat Number	15
7	Number of Answer Books handed in	

List the numbers of the questions you have attempted	Office Use
4	18
3	15
Office Use	33/75

(Gweler yr ochr arall am y fersiwn Cymraeg)

2440

Question 4.

a. Every small company or organisation use Local Area Network (LAN) to communicate, transfer file from each one pc to another. Lots of Network provider we have now, who deliver service with security. But no network is 100% secure. So network service providers always allow the users to upgrade their security when needed. At least they feel secure this way. Nowadays lots of security attack happen in network. Like as:

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max

Data Alter: Organisation may alter their data and send it to other pc or any other organisation. If they don't encrypt their data while they sending they may attack.

Malware Virus: Most of the users are attack by Malware Virus. It is a common known virus. When users try to access some link from internet which look like real content with real information but they don't that time they attack but if the users have protection they can save themselves.

Fire walls: Every small or big organisation setup firewall in their network. Attacker attack from anywhere via network when configure router it's important to setup firewall to protect data.

Virus: Attacker send it to the organisation network to damage their important file or hack their file. Once it get chance to enter any network device it spread up the whole network.

Wired Trapped: Attacker can trapped the wire, by they are looking the network provider name and the users. And try to make a connection with that.

- b. Most of the security attacks are harm for every Network. Some are work fast and some are doing slowly. And the fast users can't realise they are attacked.

- Port Access: Attacker send a lots of link to the network port. And ~~way~~ they are waiting and finding the path to get in the network. Once they get a chance they show themselves as ~~known~~ vulnerability. They act like they are real but they not. Users use them as ~~their~~ as they use every time. ✓ 2

- Access Network: An Example University. Staffs, Students, Visitor everyone can use ~~the~~ the Network. No body don't know who carry virus with their Electronic machines. Attack could be happen from any devices when it connected with network. So the port first identify the devices. If it safe then it give permission to authorized. If the ~~Access~~ path are not secure then the whole campus network might be attack. ✓ 2

- c. The benefits of VPN: Organisation use ~~not~~ LAN or WAN for communication & sending data, get in touch with whole work. Sometimes it's not secure when someone ~~send~~ transfer money, or sending most important file ~~out~~ from one place to another via public network. In that case organisation ~~the~~ use VPN to secure their communication. And VPN provides more security than others and also reliable as well. ✓

There are lots of benefits why organisation use VPN for site to site: VPN is a secure network. And it also work IPsec. So organisation get transfer their file with fully protect. ~~Site~~ Site-to-site also reliable than other network. It also helps to

manage organisation managing task like an ~~and~~ administration job. Site-to-site also provide low latency to the organisation. ✓

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Question 3

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- a. Technology ~~also~~ brings new product, services, devices everyday which make our everyday life easy. ~~At~~ we feel like the whole world is in our hand. Like Mobile phone. We get almost all every single facilities from it. We can brows, we can chat, make a phone call and a lot. ✓ WAN, ~~is~~ ofcourse is a huge wide area network. If an organisation have many branches obviously it links with same WAN.

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Internet: We are related with internet in every second in our life. ~~Provide service~~ we get ~~connection with~~. Before we need to add lots of cable for every devices to get from router to get internet connection. But now we don't need that. We just need the ~~name~~ name and password to get access in any network. It ~~also~~ reduce the cable cost ~~more~~ and make our life faster.

Video Conference: This is not a new technology. This is a great technology for ~~University~~ or an organization. Anyone can arrange meeting from anywhere in the world and can see each other, can talk each other. But make sure both technology must be connected with secure network. ✓

b. Company-A(Config) # router bgp 65000 (assign the bgp) ✓
 Company-A(Config-router) # neighbor 209.165.201.1 remote-as 65001 ✓
 (get connection with neighbor). ✓
 Company-A(Config-router) # network 198.133.219.0 mask 255.255.255.0 ✓
 (Advertise the network address).

ISP-1(Config) # route bgp 65001 (assigned the bgp). ✓
 ISP-1(Config-router) # ~~Grant~~ neighbor 209.165.201.2 remote-as 65000 ✓
 (create a link to the ~~new~~ neighbor network). ✓
 ISP-1(Config-router) # network 0.0.0.0 (connected with) ✓

c. Internet service provider provide LAN, ~~AND~~ WAN to the organization. But nowadays, they are migrate to the MPLS. ✓ Because it is working with MPLS with more flexibility, and reliability. Also get more security. ✓ The service are faster than before working with MPLS. ✓