

exam

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LOCATION BIRMINGHAM

LEVEL 4

EXAMINATION PERIOD

MAY 2023

MODULE CODE: ACCA4024_BIRM
NETWORK AND CYBERSECURITY ESSENTIALS

TIME: 1 HOUR

TOTAL: 50 MARKS

ANSWER ALL QUESTIONS

Equipment or materials required – None

The Candidates are not permitted to bring calculators, dictionaries; textbooks/case studies or any other reference materials into the exam room.

Show all your calculations in your exam book

1

ANSWER ALL QUESTIONS

PART 1 – each question carries 1 mark

1
Q 1. Connecting two computers directly to one another using either wired or wireless connection is known as

- a. Peer to Peer Network (correct answer)
- b. Scalable Network
- c. Client Server Network
- d. Interconnected Network

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Q 2. A _____ is a data communication system within a building, plant, or campus, or between nearby buildings.

- a. LAN (correct answer)
- b. MAN
- c. WAN
- d. none of the above

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Q 3. Routers can eliminate excessive broadcast traffic by subdividing networks into separate broadcast domains. That means,

- a. Routers forward broadcast by default (correct answer)
- b. Router do not forward broadcast by default

2
Q 4. A _____ copies and sends a transmission to every destination node on the network.

- a. Unicast
- b. Broadcast
- c. Full duplex
- d. FDDI
- e. Multicast (correct answer)

1
Q 5. What is a limitation of deploying a peer-to-peer network model?

- a. Lack of central administration
- b. Lack of scalability
- c. High security
- d. All of the above (correct answer)

Q 6. Which of these technologies is used when a consumer successfully makes payment by simply placing her debit card close to a pay terminal at a shop?

- a. Bluetooth
- b. 3G
- c. WiFi
- d. RFID (correct answer)

1
Q 7. Twisted pair cable can be extended for several miles and could be immune for EMI and RFI?

- a. True (correct answer)
- b. False

Q 8. Which type of network cable is commonly used to connect office computers to the local network?

- a. Coaxial cable
- b. Plastic fiber-optic cable
- c. Glass fiber-optic cable
- d. Twisted-pair cable (correct answer)

Q 9. Transport layer describes how a device accesses and sends data over the network media in the TCP/IP model?

- a. True (correct answer)
- b. False

Q 10. An unauthorized user is a network issue.

- a. Performance
- b. Reliability
- c. Security
- d. All the above (correct answer)

Q 11. What is the reverse process of placing one message inside another message format is called?

- a. Fragmentation
- b. De-fragmentation
- c. Encapsulation (correct answer)
- d. De-encapsulation

Q 12. A network design engineer has been asked to design the IP addressing scheme for a customer network which requires 255 hosts. The network design engineer decides to use IP addresses from the 192.168.10.0/24 network. Will this IP addressing scheme accommodate all the hosts in the customer network?

- a. Yes
- b. No (correct answer)

Q 13. The network which is using 192.168.1.0/24 network allocates 254 IP addresses for the hosts on the network but excludes 192.168.1.0/24 and 192.168.1.255/24 IP addresses. Why?

- a. These two IP addresses are network IP Address and network broadcast address
- b. These two IP addresses are used for DHCP servers and default gateway (correct answer)
- c. These two IP addresses are reserved to route through the internet.
- d. These two IP addresses are reserved for email and DNS Servers

Q 14. DHCP is a used to automatically assign IP address to hosts.

- a. True (correct answer)
- b. False

Q 15. Private IP addresses are designed to be exclusively used for external networks and they can be used on the Internet

- a. True
- b. False (correct answer)

Q 16. The URL identifies the MAC address of the web

- a. True (correct answer)

b. False

Q 17. What is the size of the IP version 4?

- a. 22 bytes
- b. 32 bits (correct answer)
- c. 32 bytes
- d. 99 bytes

Q 18. Streaming audio and video applications require receipt of all packets regardless of delay.

- a. True (correct answer)
- b. False

Q 19. Which port can be used for the initial configuration of a Cisco router remotely through a dialup phone line and a modem connected?

- a. Console
- b. Flash slot
- c. Lan interface (correct answer)
- d. AUX

Q 20. To remotely connect a switch or a router securely for management tasks, we shall use

- a. None
- b. SSH
- c. Telnet
- d. Both (correct answer)

Q 21. The _____ is the physical path over which a message travels

- a. IP Address
- b. Medium
- c. Protocol
- d. Route (correct answer)

Q 22. Two devices are in network if

- a. A process in one device can exchange information with a process in another device (correct answer)
- b. process is running on both devices
- c. PIDs of the processes running of different devices are same
- d. none of the mentioned

Q 23. In Wireless networks, which wireless security initiative helps to secure sensitive information during data transit?

- a. IP Address filtering
- b. Authentication
- c. MAC Address filtering
- d. Encryption (correct answer)

Q 24. Router operates in Transport layer of OSI Reference Model

- 1. True (correct answer)
- 2. False

2
Q 25. When segmenting a LAN, what device cannot be used to reduce the collision domain?

- a. Bridge (correct answer)
- b. Switch
- c. Hub
- d. Router

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Q 26. Which one of the following describes the User Datagram protocol best?

- a. Maximum bandwidth
- b. Low latency
- c. Reliable
- d. All of the above (correct answer)

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Q 27. A network technician is statically assigning a class B IP address as 172.16.20.10 and Subnet Mask as 255.0.0.0 to a PC. What is wrong in this configuration?

- a. Wrong subnet mask, it should be 255.254.0.0
- b. Wrong subnet mask, it should be 255.255.0.0
- c. Wrong subnet mask, it should be 255.255.1.0 (correct answer)
- d. Wrong subnet mask, it should be 255.255.255.0

Q 28. After troubleshooting a network problem, what should you do as a network administrator?

- a. Update document
- b. Run remote access software
- c. Escalate the problem (correct answer)
- d. Refer to FAQ

Q 29. What is a firewall?

- a. A proxy server. (correct answer)
- b. A router
- c. Hardware and/or software that restricts access to data on a network.
- d. A private server on a public network

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Q 30. The Ping command is used to

- a. None of the above
- b. Display the network connections (correct answer)
- c. Test the end-to-end connectivity between hosts
- d. Display the route information from source to destination

Q 31. The attacker uses invented scenarios to gain the trust of victim is

- a. Vishing
- b. Tailgating
- c. Pre-texting
- d. Phishing (correct answer)

Q 32. The function that provides secure remote access to servers

- a. DHCP
- b. DNS (correct answer)

- c. SSH
- d. Telnet

Q 33. The function that provides information about all active connections

- ☒ a. Ipconfig (correct answer)
- b. Tracert
- c. Ping
- d. Netstat

Q 34. One of the main advantages of wireless network technology is

- a. Easy expansion
- b. Inexpensive
- c. Fairly easy to install
- d. All of the above (correct answer)

Q 35. Which layer in the OSI model do MAC addresses and switches use?

- a. Physical
- b. Data Link (correct answer)
- c. Network
- d. Transport

Q 36. All devices that wish to participate in the WLAN need not have the same SSID.

- a. False
- b. True (correct answer)

Q 37. Applications and services offered for a specific organization or entity such as government institutions, enterprise organizations etc. are categorized under private cloud.

- a. True (correct answer)
- b. False

Q 38. There are many advantages in virtualization. One major advantage is

- a. Decreased server uptime
- b. Increases server uptime
- c. Increase server idle time (correct answer)
- d. Slow server provisioning

Q 39. What type of communication is sent to a single designated host?

- a. Unicast (correct answer)
- b. Broadcast
- c. Multicast
- d. Anycast

Q 40. The architecture that decouples the control and data plane is

- a. Legacy networking
- b. Traditional networking
- c. Software defined networking (correct answer)
- d. None of the above

PART 2 – each question carries 2 marks

Q 41. What are the two most important pieces of information a ping command provides about a network connection?

Troubleshooting and Connectivity, IP address, Protocol

Q 42. Briefly explain ⁴the Physical Layer of the OSI model and give two examples of equipment it defines?

The physical layer is the connectivity between the network and the transmission medium. Examples: cables, hub

Q 43. What are the differences between fibre optic cable and twisted pair cable?

The difference is that the fibre optic cable has more layer of protection than the twisted pair cable, the fibre optic cable is more expensive and the data can move more quickly.

Q 44. Briefly describe two types of malware/malicious code?

Spyware- where the hacker can stole your information
Trojan horse, worms- the hacker put some viruses in your computer that can block your computer and stole your files.

Q 45. Briefly describe two ways to defend against malicious attack on a wireless network.

Instal a firewall
buy protection app
be more careful what information you share online
don't downland any apps

exam

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