

# **Tutorial Letter 102/0/2023**

**Networks IV**

**IRM4721**

**Year Module**

**School of Computing**

**Department of Information Systems**

This tutorial letter contains the questions for Assessment 04

BARCODE



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## **1 INTRODUCTION**

Dear Students

This tutorial letter designated IRM4721/102/0/2023 contains the questions for Assessment 04. You will receive instructions on the submission procedure of this Assessment.

Regards

Dr H. Abdullah

## 2 ASSESSMENT 04

1. Which one of the following statements regarding network models is TRUE?

- A. Physical topologies mostly refer to how software controls access to network resources.
- B.** In a peer-to-peer network model, each computer controls its own administration, resources, and security.
- C. In a general scenario, if a network supports fewer than 15 computers, a client-server network model is the way to go.
- D. Logical topologies mostly refer to how computers work together with radio signals and other devices to form the physical network.

2. Harry, a supporting technician at Urban Solutions, is tasked with sending a technical requirement document using the email service to Hill Industries Ltd. However, he also must ensure that there are no trails left behind on the server. What should Harry do in such a situation?

- A.** He should use POP3 (Post Office Protocol, version 3) to deliver the message.
- B. He should use IMAP4 (Internet Message Access Protocol, version 4) to deliver the message.
- C. He should use the SSH (Secure Shell) protocol to deliver the message.
- D. He should use the RDP (Remote Desktop Protocol) protocol to deliver the message

3. James, a supporting technician, is trying to resolve an issue pertaining to the router. On inspecting the issue, he figured that the router was unable to move packages from one node to another. As a resolution to this problem, he intends to follow the OSI (Open Systems Interconnection) model for troubleshooting. What layer of the OSI model should he inspect to understand the issue relating to the router?

- A. The Physical Layer.
- B. The Session Layer.
- C. The Transport Layer.
- D.** The Network Layer.

4. A computer is unable to access the network. When you check the LED (Light-Emitting Diode) lights near the computer's network port, you discover the lights are not lit. Which layer of the OSI (Open Systems Interconnection) model will you use to troubleshoot this problem?

- A.** **Physical** Layer
- B. Data Link layer
- C. Session Layer
- D. Application Layer

5. The PDU (Protocol Data Unit) for the Data Link Layer of the OSI (Open Systems Interconnection) model is a \_\_\_\_\_.

- A. Packet or L3PDU (Technical name)
- B. Frame or L2PDU (Technical name)**
- C. Bit or L1PDU (Technical name)
- D. Payload or L7PDU (Technical name)

6. You have successfully implemented a solution to a bug reported by one of the employees of your organization. You also want to ensure that the process has been well documented in the knowledge base of the organization. Which one of the following information is NOT relevant in such a scenario when you put the data into the record books?

- A. The contact name of the person reporting the issue
- B. The symptoms of the problem
- C. The name of the technician who handled the problem
- D. The total number of computers functioning in the organization**

7. You are an employee for Asianet Solutions, which is an ISP (Internet Service Provider). Rickwell Infrastructures has hired Asianet Solutions to establish a network connection in its organization. You have been sent to its office to stack up the routers, servers, and switches. What would you use in such a scenario?

- A. A patch panel
- B. A data room
- C. A Rack**
- D. A patch bay

8. The University of Mordor houses almost 1000 students in its campus. It has multiple buildings in the campus where free food and Internet services are provided for the students. The University boasts of providing one of the fastest Internet experiences in the country and there have never been any reports of the service going down. To ensure such efficient connectivity, the University adheres to the ANSI/TIA standards to better manage the data feed from the main data facilities. Which one of the following can be reasonably inferred from the above scenario?

- A. There are multiple MDFs (Main Distribution Frames) in every building.
- B. The network setup used to connect the central network to other nodes is organized in a star topology.
- C. Every floor in the building has an individual IDF (Intermediate Distribution Frame).**
- D. The cable sheath used to provide the connection is plenum-rated.

9. A client contacted you to avail your services for cable installation. The requirement is to set up a connection which connects workstations to the data room, and the distance between the workstation and the data room spans 87 meters. Which cabling installation would be an ideal option for this assignment?

- A. Vertical cabling
- B. Horizontal cabling**
- C. Backbone cabling
- D. Patch cabling

10. If a twisted-pair cable has a diameter of 0.8 cm, which of the following options would you apply as the bend radius of the cable so that data transmission is not impaired?

- A. 2.4 cm
- B. 1.6 cm
- ☒ C. 3.2 cm
- D. 3 cm

11. When Kyle visited Claremont Group of Institutions as a network professional to repair defective cable ends, he accidentally left more than an inch of exposed cable before a twisted-pair termination. What will the consequence of Kyle's error be?

- A. It will increase the possibility of noise interference, which will affect the network's signals.
- B. It will risk connectivity and data transmission problems.
- ☒ C. It will increase the possibility of transmission interference between wires, a phenomenon called crosstalk
- D. It will make it difficult to diagnose data errors.

12. You have been hired to implement a major change in the financial software used by the accountants at a fast-food chain. On implementation, you notice that the devices are not compatible with the upgrade and have started showing errors, because of which the organization is unable to function. What would you do in such a situation?

- A. Network configuration
- B. Patch
- ☒ C. Rollback
- D. Upgrade

13. You are the network manager for a computer training centre that allows students to bring their own laptops to class for learning and taking notes. Students need access to the Internet, so you have configured your network's DHCP (Dynamic Host Configuration Protocol) server to issue IP (Internet Protocol) addresses automatically. Which DHCP option should you modify to make sure you are not wasting addresses used by students who have left for the day?

- A. Duration time
- B. Release time
- ☒ C. Lease time
- D. Limit time

14. Wilson Stationers has called you to its office space to troubleshoot an error wherein there is an issue with outgoing email messages because of which the logistics are getting delayed. Which one of the following ports would you troubleshoot to sort out this issue?

- A. 21
- B. 23
- C. 53
- ☒ D. 25

15. The Mosiac Music School has hired Kirk to set up a SIP (Session Initiation Protocol) protocol for a collaborative multimedia conference session that will be limited to the selected students opting for music theory. Which port should he use in such a situation so that the required encryption can be provided?

- A. 993
- B. 5060
- C. 995
- ☒ D. 5061

16. Your client has contacted you to examine a workstation that has been showing network fluctuations time and again. The client tells you that one of his employees might have spilled some hot water over the Ethernet ports. Which one of the following addresses will you choose to check the functionality of the Ethernet card without worrying about corrupted hardware and to ensure that the workstation's TCP/IP (Transmission Control Protocol/Internet Protocol) services are running?

- A. ping 192.168.1.1
- ☒ B. ping 127.0.0.1
- C. ping -a 8.8.8.8
- D. ping -?

17. On a Linux-based system, which command can be used to display TCP/IP (Transmission Control Protocol/Internet Protocol) information associated with every interface on a Linux device?

- A. ifconfig
- B. ifconfig -a
- C. sudo ifconfig eth0 down
- D. man ifconfig

18. Katy, a senior technician, wants to document all the devices that are connected to the network of Ford Industries, which has a large complex network. She wants to ensure that all information in the network, including the hostnames, manufacturer names, operating systems, and IP (Internet Protocol) addresses, are well-documented. Which one of the following tools should she opt for to carry this out?

- A. Nmap
- ☒ B. IP scanner
- C. dig
- D. ipconfig

19. In the process of encapsulation, at what layer of the OSI (Open Systems Interconnection) model would a TCP (Transmission Control Protocol) or UDP (User Datagram Protocol) header be added in front of the payload?

- A. Layer 3 (Network Layer)
- ☒ B. Layer 4 (Transport Layer)
- C. Layer 2 Data Link Layer)
- D. Layer 1 (Physical Layer)

20. Mr. Yoda is a network engineer who has been working on setting up a data delivery service. While creating the TCP (Transmission Control Protocol) segment for this purpose, the network administrator has requested Mr. Yoda to set up a command requesting a synchronization of the sequence numbers between two nodes so that it can indicate to the receiving node that there is no payload attached to the data packet. Which one of the following statements will best fit the situation for Mr. Yoda?

- A. Set the SYN to 1 byte in the flag segment of the TCP segment
- B. Set the FIN to 1 byte in the flag segment of the TCP segment
- C. Set the RST to 1 byte in the flag segment of the TCP segment
- D. Set the PSH to 1 byte in the flag segment of the TCP segment

21. Barney is the owner of Venture Capitals Internet Solutions. Venture's client Riverdale Union High has many remote users, who are school students, and they regularly need access to desktops. The school wants to offer a consistent desktop experience with installed applications that the students commonly need. However, they do not want to purchase several physical computers for these students to connect to. What should Barney do in such a scenario?

- A. Barney should use VDI (Virtual Desktop Infrastructure).
- B. Barney should use RDP (Remote Desktop Protocol).
- C. Barney should use SSH (Secure Shell).
- D. Barney should use Telnet.

22. Jason is an employee working for Deloitte Corporation. He has been allowed to work from home because of the COVID-19 outbreak. You have been asked to establish a VPN (Virtual Private Network) so that Jason can access a file server from the office while he operates from his workstation at home. It also must be kept in mind that Jason wants to stream music alongside when he does this. Which approach to VPN tunneling will you apply so that the necessary requirements are met?

- A. Split tunnel VPN
- B. Site-to-site VPN
- C. Host-to-host VPN
- D. Full tunnel

23. Your client has hired you to extract details about the port on which the TCP/IP (Transmission Control Protocol/Internet Protocol) connections are running. You, as a network engineer, have decided to use the netstat utility for this purpose. Which command will you apply to list all current TCP connections and all listening TCP (Transmission Control Protocol) and UDP (User Datagram Protocol) ports?

- A. netstat -a
- B. netstat -e
- C. netstat -r
- D. netstat -b



24. Mr. Yen has been working as a network technician for Goldyear Tyres. Recently, a couple of routers were reported for hardware failure. As the organization is large, it will take a lot of time to track down and identify the malfunctioning routers. What would be the most feasible option for Mr. Yen in this situation to solve the issue?

- ☒ A. Use traceroute or tracert to track down the malfunctioning routers
- ☐ B. Use ping to test for network connectivity
- ☐ C. Use tracert to target a node instead of the router
- ☐ D. Use Mac spoofing

25. You are a network administrator for an ISP (Internet Service Provider) that wants to increase the amount of data that can be transmitted within the given bandwidth. For this purpose, you decide to use multiplexing technologies so that you can assign time slots to nodes according to need and priority. Which type of multiplexing will you use in this case?

- ☐ A. WDM (Wavelength Division Multiplexing)
- ☐ B. FDM (Frequency Division Multiplexing)
- ☒ C. STDM (Statistical Time Division Multiplexing)
- ☐ D. DWDM (Dense Wavelength Division Multiplexing)

26. You are setting up a network connection that can transmit up to 10 Gbps with a maximum frequency of 500 MHz. However, you do not want to disrupt the previous cabling equipment as it will increase the cost. Which TIA/EIA 568 standard twisted-pair cabling standard will you use to carry out this operation without having to go through the equipment changes?

- ☐ A. Cat 5 (Category 5)
- ☒ B. Cat 6a (Augmented Category 6)
- ☐ C. Cat 6 (Category 6)
- ☐ D. Cat 5e (Enhanced Category 5)

27. Which pin number would you associate a white/orange T568A colour Fast Ethernet function?

- ☐ A. 1
- ☒ B. 3
- ☐ C. 5
- ☐ D. 7

28. You have been getting complaints about slow speed from one of your clients. You decide to visit the site to have a look, and you notice that the RJ (Registered Jack)-45 connector has been tampered with because of which there are network fluctuations. These fluctuations are taking place as the pins in the connectors are bent. Which one of the following tools will you use to push the pins inside the RJ-45 connector?

- ☐ A. Wire cutter
- ☐ B. Snips
- ☐ C. Cable stripper
- ☒ D. Cable crimper

29. Josh is a new trainee at TT&P who has been sent to a client location to patch up cables connecting the switch to the data center. While doing so, Josh is unable to decide which connector to consider while connecting the ferrules of an SMF (Single Mode Fiber) cable that measures 1.25 mm. Which one of the following connectors should Josh opt for under the circumstances so that there are minimum back reflections?

- ☒ A. LC (Local connector)
- ☐ B. ST (Straight Tip)
- ☐ C. MT-RJ (Mechanical Transfer -Registered Jack)
- ☐ D. SC (Subscriber Connector)

30. Mr. Chadwick has recently set up a network connection for a client wherein he made a connection between an SMF (Single Mode Fiber) and an MMF (Multimode Fiber) cable using a fusion splicer. Around a week later, the client calls him up and raises a concern about fluctuations in the network. Mr. Chadwick decides to conduct an on-site inspection, and he gets to know that the reason behind the fluctuation is that the transmission has not traversed successfully. Which common fiber problem is Mr. Chadwick referring to in this case?

- ☐ A. Dirty connectors
- ☐ B. Wavelength mismatch
- ☐ C. Link loss
- ☒ D. Fiber type mismatch

31. DMPL wants to establish a one-stop shopping point for consumers. DMPL has contracted you to develop a single card that can be used for loyalty and membership programs as well as for cashless payments. The management at DMPL has specified that the card should not include a power source and should be able to transfer data wirelessly over short distances up to 10 cm. Which one of the following technologies will you use?

- ☐ A. RFID (Radio Frequency Identification)
- ☐ B. ANT +
- ☐ C. ZigBee
- ☒ D. NFC (Near-Field Communication)

32. Betty has recently bought a house in Manhattan, and she wants the living room to be wirelessly connected through Bluetooth. She intends on buying a central Bluetooth device that will be the center for all the other Bluetooth devices. This has been presented to you, a network analyst. Which one of the following frequencies in the wireless spectrum will you use to successfully enable this connection?

- ☒ A. 2.4 GHz to 2.4835 GHz
- ☐ B. 824 MHz to 896 MHz
- ☐ C. 1850 MHz to 1990 MHz
- ☐ D. 5.1 GHz to 5.8 GHz

33. Tim has been contracted to install a wireless connection at the head office of Travis Roadways. The head office is located in between two manufacturing units because of which there is a lot of noise in the wireless spectrum. The management has requested Tim to ensure that the network connection provides reliable delivery of time-sensitive data so that they can conduct meetings with other branch divisions via video streaming. What is the RSSI (Received Signal Strength Indicator) level required for Tim to establish the connection functional as per the requirements?

- A. The RSSI level should at least be -80 dBm.
- B. The RSSI level should at least be -90 dBm.
- ☒ C. The RSSI level should at least be -50 dBm.
- D. The RSSI level should at least be -70 dBm.

34. Yours Eventfully is a talent acquisition firm that wants to install biometric methods such as hand scanning at its office for which you have been contracted. Your job as a network engineer is to create an encrypted TLS (Transport Layer Security) tunnel between the supplicant and the server before proceeding with the usual EAP (Extensible Authentication Protocol) process. Which of the following versions of EAP will you use in this scenario?

- A. PEAP (Protected EAP)
- ☒ B. EAP-TLS
- C. EAP-FAST (EAP-Flexible Authentication via Secure Tunneling)
- D. EAP-MSCHAPv2

35. Local Dreams is a small cafe operating in New York. It has set up a free wireless network in its cafe to provide customers with ease of Internet access. Recently, one of the customers lodged a complaint against Local Dreams regarding data theft from his emails, which has been traced back to the cafe's public IP. Local Dreams has informed Barton, who is the network provider for the cafe, to rectify the issue. Which one of the following should Barton do to rectify the issue?

- A. He should check for guest network preferences.
- B. He should check if the antenna has been misplaced.
- ☒ C. He should check whether captive portal user reminders have been set up.
- D. He should check whether the geofencing security option has been enabled.

36. Michael Slater is the new technician in the office. An issue has reduced the performance of the network, but he is unable to diagnose the reason behind the issue. On checking the recommended geographic range for the AP (Access Point), he realizes that the clients are not within the recommended distance. This has caused multiple data errors and a deterioration in communication. Which one of the following issues has caused the issue here?

- A. Interference
- B. Channel overlap
- ☒ C. Insufficient wireless coverage
- D. Simultaneous wired and wireless connections

37. You have been hired as an assistant to the head network administrator in an ISP (Internet Service Provider). While setting up the network for one of your clients, he wants you to check whether sufficient security precautions have been taken to ensure none of the customer's switches becomes the ISP's root bridge. What will you use in this scenario to ensure that the appropriate security measures have been taken?

- A. A BPDU (Bridge Protocol Data Unit) guard
- B. A BPDU filter
- ☒ C. A root guard
- D. A root bridge

38. For over a decade, Ramanathan has been working as a network engineer in an organization that uses FC (Fibre Channel) networking architecture. His primary duty is to ensure that there are no issues in the network connections between servers and SAN (Storage Area Network) devices, so that maximum throughput is always achieved. Recently, one of the connections of the FC device to the network malfunctioned, which Ramanathan must fix. Which one of the following should Ramanathan do in this scenario?

- A. Use NICs (Network Interface Cards) to connect the FC devices to the network
- ☒ B. Connect the FC devices to the network through HBAs (Host Bus Adapters)
- C. Install CNAs (Converged Network Adapters) to connect to network servers
- D. Use the iSCSI (Internet SCSI) protocol

39. You run a website called Offhand that sells exclusive handmade home decor items. On Mother's Day, the website unexpectedly receives a burst of traffic following the marketing campaign designed for this occasion. Thankfully, you are equipped with a good cloud service model and hence you can increase the cloud resources the website needs without disrupting your web services. Which cloud characteristics helped you manage the situation easily?

- ☒ A. Rapid elasticity
- B. Resource pooling
- C. Measured service
- D. Broad network access

40. As a developer, you need frequent access to multiple platforms during the development process. Rather than purchasing and maintaining a separate device for each platform, you have decided to avail the cloud service option. You are looking to build and test the applications within these virtual, online environments, which are tailored to the specific needs of the project. The cloud service model should have servers that provide only the resources needed to run an application and allow customers to run their code directly in the cloud without having to manage a server environment at all. Which one of the following cloud service models do you think would be appropriate considering your requirements?

- A. IaaS (Infrastructure as a Service)
- ☒ B. PaaS (Platform as a Service)
- C. SaaS (Software as a Service)
- D. DaaS (Desktop as a Service)

41. What is the downtime per day for a system showing 99.9% availability?

- A. 0.4 seconds
- B. 1 minute and 26 seconds**
- C. 14 minutes and 23 seconds
- D. 8 seconds

42. As a network administrator of your company, you have decided to implement redundant connections between network devices to solve problems like network bottlenecks. You have decided to implement this change so that multiple network interfaces and ports can act as one logical interface and focus on increasing total throughput and better load balancing. What will you use to implement this change in your Windows devices?

- A. NIC teaming**
- B. Port aggregation
- C. Load balancing
- D. Clustering

43. What is the least number of bits you would need to borrow from the network portion of a Class B subnet mask to get at least 130 hosts per subnet?

- A. 4
- B. 6
- C. 7
- D. 8**

44. The organization where you are currently working as a network administrator has a class A network address 10.0.0.0 with 40 subnets. You want to add another 60 new subnets to the network. You would like to still allow for the largest possible number of host IDs per subnet. Which one of the following subnet masks will you choose in this scenario?

- A. 255.248.0.0**
- B. 255.240.0.0
- C. 255.252.0.0
- D. 255.254.0.0

45. Tobias needs to create a network for the sales department, which has 86 users, using the smallest subnet possible. Which one of the following is the total number of usable IP (Internet Protocol) addresses that will remain free after creating this subnet?

- A. 42
- B. 170
- C. 168**
- D. 40

46. What subnet mask can be used to segment the 172.16.0.0 network to allow for a minimum of 6 subnets while maximizing the number of hosts per subnet?

- A. 255.255.224.0
- B. 255.255.240.0**
- C. 255.255.248.0
- D. 255.255.252.0

47. A network with 10 bits remaining for the host portion will have how many usable host addresses?

- ☒ A. 1024
- ☐ B. 1022
- ☐ C. 1028
- ☐ D. 1026

48. In the context of IPv4 Class C subnet masks, a network with a CIDR (Classless Interdomain Routing) notation of /26 would have what subnet mask?

- ☐ A. 255.255.255.192
- ☐ B. 255.255.255.224
- ☒ C. 255.255.255.128
- ☐ D. 255.255.255.252

49. You as a network administrator want to protect the network from unauthorized traffic, and for this reason, you decide to change the native VLAN (Virtual Local Area Network) to an unused VLAN so that the untagged traffic is essentially directed toward a dead-end. Which one of the following commands will you use to do this on a Cisco switch?

- ☐ A. switchport trunk native vlan
- ☐ B. ip dhcp snooping
- ☒ C. set port-mode trunk
- ☐ D. set native-vlan-id

50. Brown Industries consults you to review and check for faults in the recently installed port based VLAN (Virtual Local Area Network) network on its premises. The VLAN has been segmented according to Brown Industries' departments such as Sales, Finance, and Marketing. On inspection, you realize that a virtual sales client, which should have been plugged into port 6, has been plugged into port 1, which is reserved for marketing clients. What kind of configuration error are you facing in this situation?

- ☒ A. Incorrect VLAN assignment
- ☐ B. Incorrect port mode
- ☐ C. VLAN isolation
- ☐ D. Double tagging

51. You are working as a network engineer at Krofter Securities. The organization uses Cisco's Linux OS in all its workstations. The network administrator has asked you to use the route utility to delete some static routes used by the router. Which one of the following commands will you use in this scenario?

- ☒ A. route
- ☐ B. route print
- ☐ C. show ip route
- ☐ D. show running-config

52. Routing cost, is a value assigned to a particular route as judged by the network administrator; the more desirable the path, the \_\_\_\_\_ its cost.

- ☐ A. higher
- ☐ B. lower

53. OSFP (Open Shortest Path First) and IS-IS (Intermediate System to Intermediate System) are distance-vector routing protocols that are highly scalable for very large networks. Is this statement TRUE or FALSE?

- A. True
- B. False**

54. Beevan works as a network analyser for an ISP (Internet Service Provider). The network manager has asked him to use a protocol for the routers that can scan beyond the home territory and can instruct a group of routers to prefer one route over other available routes. Which one of the following routing protocols should be used in this scenario?

- A. EIGRP (Enhanced Interior Gateway Routing Protocol)
- B. IS-IS (Intermediate System to Intermediate System)
- C. BGP (Border Gateway Protocol)**
- D. OSPF (Open Shortest Path First)

55. Bradley has been running a business in his garage for over a period of 10 years. He plans on expanding the business by opening three new offices in three different cities. Since he has accumulated sufficient profits to move to a larger office space, he plans to upgrade his network connection to one with a dedicated and symmetrical bandwidth. Bradley approaches Mantle Solutions, an ISP (Internet Service Provider). Which one of the following options should be offered by the ISP in this scenario?

- A. Cable broadband
- B. MPLS (Multiprotocol Label Switching)**
- C. SD-WAN (Software-Defined Wide Area Network)
- D. Leased lines

56. Robert has been working as a network security expert for Indus Grow Wealth Management, which allows its clients to view their current loan status online. With the recent cases of attempted hacks in banking systems, Robert has decided to test the security systems by hiring hackers to try and analyze the security risks at Grow Wealth Management. Who among the following would best suit Robert's requirement in this scenario?

- A. White hat hackers**
- B. Black hat hackers
- C. Gray hat hackers
- D. CVE (Common Vulnerabilities and Exposures)

57. At a security training exercise, you had to devise a strategy to penetrate an organization's data room by accessing one of their employee's ID cards. You decided to demonstrate this exercise by offering a gift to one of the employees in exchange for a few hours of data room access. What kind of social engineering method have you used in such a scenario?

- A. Phishing
- B. Baiting
- C. Quid pro quo**
- D. Tailgating



58. How is a posture assessment performed on an organization?

- A. A thorough examination of each aspect of the organization's network is performed to determine how it might be compromised.
- B. A third-party organization is tasked with attempting to break into the organization and compromise security to determine threat vectors.
- C. A report of data that is subject to special regulation is created, such that the organization is aware of what data needs protection.
- D. An assessment of how a network will perform under stress is performed to determine if the network throughput is adequate.

59. You, as a network engineer, want to have an insight into your network's weaknesses that need attention. You want to search for devices with open ports indicating which insecure service might be used to craft an attack and identify unencrypted sensitive data. Which scanning tool will you use in this scenario?

- A. Nmap
- B. Nessus
- C. Metasploit
- D. Honeypot

60. HealthCity Nursing Home is a newly opened hospital with many employees, doctors, nurses, and support staff. The upper management of the hospital wants to draft a security policy that outlines the guidelines, rules, restrictions, and consequences of violations, all of which help minimize the risk involved in allowing restricted access to some users. The doctors who have access to protected patient information must be informed what they can and cannot do with that patient data and what special precautions they must take to protect patients' privacy. Certain checks and balances must also be maintained and defined in the policy measures in detail. Which one of the following security policies should be used in this scenario?

- A. An NDA (Non-Disclosure Agreement)
- B. An anti-malware Policy
- C. A PUA (Privileged User Agreement)
- D. An AUP (Acceptable Use Policy)

61. Johnathan is the network engineer of an organization that restricts the use of certain webpages. As he does not have any pending work, he decides to take a break and watch a movie online until a task is assigned to him. Which one of the following actions is best suited for him in this situation so that the IP address of the organization is not compromised?

- A. Use an IDS (Intrusion Detection System) to bypass security protocols
- B. Use proxy servers to mask Internet activities
- C. Use a network-based firewall for this purpose
- D. Use a packet-filtering firewall for this purpose



62. The HR manager of Veep Communications notices a lot of employees' waste valuable time surfing social media websites. The HR (Human Resources) manager requests you (a network administrator) to prevent the employees' access to these websites. Which one of the following firewalls will you use in this scenario?

- A. Stateless firewall
- B. Host-based firewall
- C. Application layer firewall
- D. Packet-filtering firewall**

63. You have been working as a network engineer with an organization. You have decided to implement information access control to limit the users and devices that can get to your data and other network resources. For this purpose, you plan on using a username and password as a measure of security to grant any user access to your organization's resources. Which element of the AAAA acronym will you use to apply this security measure?

- A. Authentication**
- B. Authorization
- C. Accounting
- D. Auditing

64. As a network administrator, Murphy wants to add additional layers of security to prevent hackers from penetrating the network. To achieve this, he plans on adding additional authentication restrictions that might strengthen network security. Which one of the following should he do in this context?

- A. Set a limit on consecutive logon attempts**
- B. Specify the maximum hours that a user can be logged in
- C. Specify a geographic location
- D. Specify a particular time of the day for users to be logged in

65. You are the network engineer for Muhan Mobile Services. The network administrator has asked you to separate the authentication, auditing, and authorization capabilities. Which AAA protocol will you use in such a scenario?

- A. RADIUS (Remote Authentication Dial-In User Service)
- B. TACACS+ (Terminal Access Controller Access Control System Plus)**
- C. RBAC (Role-Based Access Control)
- D. Kerberos

66. James, a network engineer, has been contracted by a company to monitor network performance. To know and analyse any problem in a network, James will need to understand how the network functions in a normal state. Which one of the following will be of use to James in this scenario.

- A. Checking the network's performance baseline**
- B. Checking the interface statistics of the network
- C. Checking if the network is operating at maximum capacity
- D. Checking if the connection has jitter

67. Trevor is working as a network engineer at Spring Oaks High School. The school's management has been facing some issues while handling network traffic. Trevor wants to check the bandwidth as he assumes that the issues faced by the management are related to bandwidth errors. Which one of the following technologies should Trevor use to ensure some traffic gets priority over other traffic so the most important traffic gets through even during times of congestion?

- A. Congestion control
- B. QoS (Quality of Service)**
- C. Flow control
- D. Traffic shaping

68. You have been hired as a systems analyst by an online food delivering service. Your job requires you to keep the network congestion free during peak hours and to ensure that important traffic can survive the congestion while fewer sensitive frames are discarded. Which one of the following techniques will you use in such a scenario?

- A. Window policy
- B. Acknowledgment policy
- C. Discarding policy**
- D. Admission policy

69. A fraudulent financial deal has just taken place in the company where you are working as a network administrator. The data of the company will be collected in such a way that it can be presented in a court of law for the purpose of prosecution. Some of the forensic data available for analysis may be damaged or destroyed if improperly handled. You have been assigned the duty to safeguard sensitive information, logged data, and other legal evidence until the first responder or incident response team can take over the collection of evidence. To prevent contamination of evidence, you have made sure that each device involved is isolated-that is, the device is disconnected from the network and secured to ensure that no one else has contact with it until the response team arrives. What is the next step that you will take in the event of such an illegal activity?

- A. Monitor evidence and data collection.
- B. Protect the chain of custody.**
- C. Document the scene.
- D. Monitor transport of data and equipment.

70. Donald is a schoolteacher living in Atlanta. While conducting online classes, he experienced a momentary decrease in voltage. His computer shut down and when he switched it back on, he realized that he had lost some data. He called his friend Chadwick who is a network analyst to check out what the issue was. Chadwick found that there was a power flaw caused by an overtaxed electrical system. Such voltage decreases can cause computers or applications to fail and potentially corrupt data. What kind of power flaw caused this issue in Donald's house?

- A. Brownout**
- B. Blackout
- C. Noise
- D. Surge