

Instructions:

For this formative assessment the students are not allowed to work in groups. To be found competent the learner must at least achieve 80% or more. The work submitted must be the learners own work. Failure to comply with the instructions will result in a not yet competent competency.

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| --- | --- | --- | --- |
| **Module code** | **SYS412** | **Module name** | **System Support 2** |
| **Total marks** | 100 | **Pass mark** | 80% |

# QUESTION 1

To which IP configuration does the CIDR notation 192.168.1.1/25 refer?

1. 192.168.1.1 255.255.255.64
2. 192.168.1.1 255.255.255.1
3. 192.168.1.1 255.255.255.32
4. 192.168.1.1 255.255.255.256
5. 192.168.1.1 255.255.255.128

# QUESTION 2

Which command is used to verify that a server is connected to the network?

1. IPCONFIG
2. ROUTE
3. PING
4. CHECK

# QUESTION 3

Which of these represents the Internet Protocol version 6 (IPv6) loopback address?

1. 127.0.0.1
2. 192.168.0.1
3. FEC0:A8C0::AA01
4. ::1

# QUESTION 4

Which of these addresses is a multicast address?

1. 127.0.0.1
2. 169.254.0.1
3. 192.168.0.1
4. 224.0.0.1

# QUESTION 5

Which of the following uses pointer records and A records?

1. IDS
2. DNS Server
3. NAT Server
4. IPS

# QUESTION 6

The ipconfig command will:

1. Configure routers
2. Display a client's address
3. Display a client's broadcast mode
4. Configure DHCP clients

# QUESTION 7

One reason to incorporate VLANs in a network is to: A. Increase the number of available IP addresses.

1. Increase the number of available Media Access Control (MAC) addresses.
2. Reduce the number of broadcast domains.
3. Reduce the number of nodes in a broadcast domain.

# QUESTION 8

Which of these is an application layer protocol?

1. TCP
2. FTP
3. IP
4. UDP

# QUESTION 9

The top-level domain ofwww.adventureworks.com is:

1. www
2. adventureworks
3. adventureworks.com
4. com

# QUESTION 10

At what layer in the OSI model are hardware addresses referenced?

A. Network B. Application

1. Data link
2. Physical

# QUESTION 11

You need to divide a network into three subnets.

Which device should you use?

1. Hub
2. Bridge
3. Router
4. Segmenter

# QUESTION 12

The type of connector used on a 100BaseT Ethernet cable is:

1. RJ-11
2. RJ-45.
3. TNC.
4. BNC.

# QUESTION 13

In addition to switching, multilayer switches also:

A. Provide Layer 3 routing functions.

1. Interface with CAT3, CATS, CAT5e, and fiber optics.
2. Support 10 MB, 100 MB, and 1 GB local area network (LAN) ports.
3. Operate by using only Layer 1 and 2 protocols.

# QUESTION 14

One reason to replace an unmanaged switch with a managed switch is to:

1. Manage the routing tables.
2. Support multiple VLANS.
3. Reduce collision domains.
4. Route between networks,

# QUESTION 15

To directly connect the Ethernet network interface cards (NICs) of two computers, you should use a:

A. Crossover cable

1. Straight cable
2. Rollover cable
3. Coaxial cable

# QUESTION 16

The function of a router is to:

1. Provide IP subnet masks for hosts.
2. Forward traffic to other networks.
3. Broadcast routing tables to clients.
4. Store tables for name resolution.

# QUESTION 17

If a router cannot determine the next hop for a packet, the router will:

A. Forward the packet to the default route.

1. Send the packet back to the packet's source.
2. Broadcast the packet.
3. Store the packet in the memory buffer.

# QUESTION 18

In which physical network topology is each computer connected to a central point? A. Star

1. Mesh
2. Ring
3. Bus

# QUESTION 19

Which two of the following are connectivity options for wide area networks (WANs)? (Choose two.) A. Token ring

1. Ethernet
2. Dial-up
3. Leased line

# QUESTION 20

A private network that allows members of an organization to exchange data is an:

A. Extranet B. Ethernet

C. Intranet D. Internet

# QUESTION 21

Security is a concern on wireless networks due to:

A. The radio broadcast access method.

1. Spread spectrum issues.
2. Frequency modulation issues.
3. The potential for cross-talk.

# QUESTION 22

A characteristic of the mesh topology is that it: A. Uses a central hub.

1. Cannot use wired connections.
2. Uses redundant paths.
3. Cannot use wireless connections.

# QUESTION 23

To protect a network when it is connected to the Internet, you should use a:

1. Bridge
2. Firewall
3. Switch
4. Router

# QUESTION 24

One purpose of a perimeter network is to:

1. Make resources available to the intranet.
2. Link campus area networks (CANs).
3. Link local area networks (LANs).
4. Make resources available to the Internet.

# QUESTION 25

Which protocol can be used to encrypt packets on the Internet?

1. SNMP
2. HTTPS
3. TFTP
4. HTTP

# QUESTION 26

The service that resolves fully qualified domain names (FQDN) to IP addresses is: A. Windows Internet Name Service (WINS).

1. Domain Name Service (DNS).
2. Internet Service Provider (ISP).
3. Address Resolution Protocol (ARP).

# QUESTION 27

If a router is installed so that it separates a DHCP server from its clients, the clients will: A. Immediately lose connectivity to all segments.

1. Be unable to obtain their leases from the server.
2. Immediately lose connectivity to the local segment.
3. Receive an immediate renewal of their lease.

# QUESTION 28

Which of the following services masks internal IP addresses from outside the network?

1. DHCP
2. WINS
3. NAT
4. DNS

# QUESTION 29

The query protocol used to locate resources on a network is:

A. User Datagram Protocol (UDP).

B. Lightweight Directory Access Protocol (LDAP), C. Tracert

D. Telnet.

# QUESTION 30

Tracert is used to:

1. Manage routing tables dynamically.
2. Manage session-oriented connections between nodes.
3. Report the route taken by packets across an IP network.
4. Report the shortest route between different networks.

# QUESTION 31

In which OSI layer does routing occur?

1. Transport
2. Network

C. Data Link

D. Physical

# QUESTION 32

What type of record does DNS use to find a mail service?

1. Service (SRV) DNS record
2. Canonical (CNAME) DNS record
3. Mail Exchanger (MX) DNS record
4. Host (A) DNS record

# QUESTION 33

The default gateway address identifies the:

1. Device that will connect the computer to the local network.
2. Device that will connect the computer to a remote network.
3. Server that will provide name services for the computer.
4. Server that will authenticate the user of the computer.

# QUESTION 34

How many bits are there in an Internet Protocol version 6 (IPv6) address?

1. 32
2. 64
3. 128

D. 256

# QUESTION 35

Which of the following is a public IP address?

1. 10.156.89.1
2. 68.24.78.221
3. 172.16.152.48
4. 192.168.25.101

# QUESTION 36

What is the minimum cabling requirement for a 100BaseTX network?

1. Category 3 UTP cable
2. Category 5 UTP cable
3. Category 6 UTP cable
4. Multimode fiber cable

# QUESTION 37

Internet Key Exchange (IKE) is responsible for which two functions? (Choose two.)

1. Establishing network speed parameters
2. Verifying the client's patch level
3. Negotiating algorithms to use
4. Exchanging key information

# QUESTION 38

This question requires that you evaluate the underlined text to determine if it is correct.

The process of replicating a zone file to multiple DNS servers is called zone replication, Select the correct answer if the underlined text does not make the statement correct. Select 'No change is needed" if the underlined text makes the statement correct.

1. Zone transfer
2. Zone synchronization
3. Start of authority
4. No change is needed

# QUESTION 39

Which DNS record type specifies the host that is the authority for a given domain? A. NS

1. MX
2. CNAME
3. SOA

# QUESTION 40

This question requires that you evaluate the underlined text to determine if it is correct.

All session data is encrypted between all machines while using telnet.

Select the correct answer if the underlined text does not make the statement correct. Select 'No change is needed" if the underlined text makes the statement correct.

1. Not encrypted
2. Encrypted between any Windows machines
3. Encrypted only to any non-Windows machines
4. No change is needed

# QUESTION 41

Which protocol is a transport layer protocol?

1. FTP
2. IP

C. UDP

D. ASCII

# QUESTION 42

This question requires that you evaluate the underlined text to determine if it is correct. IPv4 multicast addresses range from 192.168.0.0 to 192.168.255.255.

Select the correct answer if the underlined text does not make the statement correct. Select "No change is needed" if the underlined text makes the statement correct.

1. 127.0.0.0 to 127.255.255.255
2. 172.16.0.0 to 172.31.255.255
3. 224.0.0.0 to 239.255.255.255
4. No change is needed

# QUESTION 43

This question requires that you evaluate the underlined text to determine if it is correct.

The four IEEE standards, 802.11a, b, g, and n, are collectively known as mobile ad hoc networks. Select the correct answer if the underlined text does not make the statement correct. Select 'No change is needed" if the underlined text makes the statement correct.

1. WiMAX
2. Bluetooth
3. WiFi
4. No change is needed

# QUESTION 44

A university has network links between various locations. Where would a T3 connection be appropriate?

1. Server to network in the main campus server room
2. Main campus to a large satellite campus
3. Computer lab PC to lab printer
4. Library laptop PC to Internet

# QUESTION 45

You work at a coffee shop. Your supervisor asks you to help set up a computer network. The network needs to have the following items:

A public facing web server

A Wi-Fi network for customers

A private network for the point of sale terminals

An office PC A file/print server

A network printer

You need to set up a perimeter network to protect the network.

Which two items should you include in the perimeter network? (Choose two.)

1. Network printer
2. Web server
3. File server
4. Wi-Fi network
5. Point of sale terminals

# QUESTION 46

Which two features of a Windows Server 2008 R2 server should you install to use that server as a software router? (Choose two.)

1. Network Policy and Access Services
2. Routing and Remote Access Services
3. Remote Administration
4. Direct Access

# QUESTION 47

What are two characteristics of fiber optic cable? (Choose two.)

1. Conducts electricity
2. Requires metal conduit
3. Supports splicing
4. Requires a polish for end connectors

# QUESTION 48

Which Microsoft network service can you use to establish a connection to a corporate LAN without any user action?

1. VPN
2. Remote Desktop
3. DirectAccess
4. Nap

# QUESTION 49

This question requires that you evaluate the underlined text to determine if it is correct.

A secondary zone is the first DNS zone to which all updates for the records that belong to that zone are written.

Select the correct answer if the underlined text does not make the statement correct. Select 'No change is needed" if the underlined text makes the statement correct.

1. Primary zone
2. Stub zone
3. Conditional forwarding zone
4. No change is needed.

# QUESTION 50

You are setting up a network computer game.

You need to open up ports on your firewall so your friends can join the network. Which command displays the ports that your computer is listening for?

1. nslookup
2. nbtstat
3. ping
4. netstat

**Signature of Facilitator Date**

# Signature of Learner Date