Republic of the Philippines
SULTAN KUDARAT STATE UNIVERSITY
COLLEGE OF COMPUTER STUDIES
Isulan Campus, Isulan Sultan Kudarat

IS223 IT infrastructure and Network Technologies
Midterm Exam

Name: _____ Course: Year/Section: _____ Subject:_____

I. (Multiple Choice) Please write your answer before the number corresponding to the option you believe to be the best answer

1. Every single device can be connected to every other device on network
   a. linear structure b. bus-like structure c. network mesh d. Inter-Connectivity
2. All devices can be connected to a single medium but geographically disconnected
   a. linear structure b. bus-like structure c. network mesh d. Inter-Connectivity
3. Each device is connected to its left and right peers only
   a. linear structure b. bus-like structure c. hybrid structure d. star-like structure
4. All devices connected together with a single device
   a. linear structure b. bus-like structure c. hybrid structure d. star-like structure
5. All devices connected arbitrarily using all previous ways to connect each other
   a. linear structure b. bus-like structure c. hybrid structure d. star-like structure
6. belongs a single autonomous system and cannot be accessed outside its physical or logical domain
   a. private network b. public network c. hybrid network d. Point-to-Point
7. A network which is accessed by all.
   a. private network b. public network c. hybrid network d. Point-to-Point
8. Two systems can be connected in back-to-back fashion
   a. private network b. public network c. hybrid network d. Point-to-Point
9. In geographical span network What PAN is stand for
   a. Personal Area Network c. Point-to-Point Area Network
   b. Private Area Network d. Public Area Network
10. A Bluetooth-enabled which may contain up to 8 devices connected together in a masterslave fashion
    a. PAN b. LAN c. MAN d. WAN
11. smallest network which may include Bluetooth enabled devices or infra-red enabled devices
    a. PAN b. LAN c. MAN d. WAN
12. spanned inside a building and operated under single administrative system
    a. PAN b. LAN c. MAN d. WAN
13. Usually covers an organization offices, schools, colleges or universities
    a. PAN b. LAN c. MAN d. WAN
14. generally expands throughout a city such as cable TV network
    a. PAN b. LAN c. MAN d. WAN
15. covers a wide area which may span across provinces and even a whole country
    a. PAN b. LAN c. MAN d. WAN
16. It is the largest network in existence on this planet
    a. Ethernet c. Network Inside Network
    b. Internet d. Network
17. Because of shortage of address spaces, it is gradually migrating from IPv4 to ___.
    a. IPV6 b. IP Address V4 c. IPV2 d. BASE 10
18. is a widely deployed LAN technology which uses shared media has high probability of data collision
    a. Ethernet b. Internet c. LAN d. MAC Address
19. Traditional Ethernet uses 10BASE-T specifications. What is BASE means?
    a. baseband b. Base MBS c. Basement d. bandwidth
20. Traditional Ethernet uses 10BASE-T specifications. What is T means?
    a. Thickness b. Thick c. Transmission d. Topology
21. Ethernet follows what topology?
    a. Ring Topology b. Star Topology c. Hybrid Topology d. Bus Topology
22. Ethernet follows with segment length up to how many meters?
    a. 50 meters b. 100 meters c. 200 meters d. 500 meters
23. Fast Ethernet can provide speed up to how many MBPS
    a. 10 MBS b. 100 MBS c. 50 MBS d. 1000 MBS
24. Giga-Ethernet provides speed up to how many mbits/seconds ?
    a. 10 MBS b. 100 MBS c. 50 MBS d. 1000 MBS
25. is a solution to divide a single Broadcast domain into multiple Broadcast domains
    a. Ethernet b. Fast Ethernet c. Giga Ethernet d. VLAN

26. Host in one VLAN can speak to a host in another.
    a. true b. false
27. By default, all hosts are placed into different VLAN
    a. true b. false
28. is the arrangement with which computer systems or network devices are connected to each other.
    a. Point-to-point b. Network Topology c. Bus Topology d. Ring Topology
29. networks contain exactly two hosts such as computer, switches, routers, or servers connected back-to-back using a single piece of cable.
    a. Point-to-point b. Network Topology c. Bus Topology d. Ring Topology
30. all devices share single communication line or cable
    a. Point-to-point b. Star Topology c. Bus Topology d. Ring Topology
31. All hosts are connected to a central device, known as hub device, using a point-to-point connection
    a. Point-to-point b. Star Topology c. Bus Topology d. Ring Topology
32. a host is connected to one or multiple hosts.
    a. Mesh Topology b. Star Topology c. Bus Topology d. Ring Topology
33. All hosts have a point-to-point connection to every other host in the network.
    a. Mesh Topology b. Full Mesh c. Partially Mesh d. Tree Topology
34. Not all hosts have point-to-point connection to every other host.
    a. Mesh Topology b. Full Mesh c. Partially Mesh d. Tree Topology
35. This topology imitates as extended Star topology and inherits properties of Bus topology
    a. Mesh Topology b. Full Mesh c. Partially Mesh d. Tree Topology
36. each host machine connects to exactly two other machines, creating a circular network structure
    a. Point-to-point b. Star Topology c. Bus Topology d. Ring Topology
37. This topology connects all the hosts in a linear fashion. Similar to Ring topology
    a. Hybrid Topology b. Star Topology c. Bus Topology d. Chain Topology
38. A network structure whose design contains more than one topology
    a. Hybrid Topology b. Star Topology c. Bus Topology d. Chain Topology
39. what layer device such as hub or repeater
    a. layer 1 b. layer 2 c. layer 3 d. none of the above
40. what layer device such as switch or bridge
    a. layer 1 b. layer 2 c. layer 3 d. none of the above
41. what layer device such as router or gateway
    a. layer 1 b. layer 2 c. layer 3 d. none of the above
42. The lowermost where computers are attached of tree topology
    a. access-layer b. Middle layer c. core layer d. none of the above
43. The highest layer known and is central point of the network in tree topology
    a. access-layer b. Middle layer c. core layer d. none of the above
44. Model that open standard for all communication systems
    a. access-layer b. Middle layer c. core layer d. none of the above
45. In a subnet mask, what does the binary value "11111111.11111111.00000000.00000000" represent?
    a. A /24 subnet mask b. A /16 subnet mask c. A /20 subnet mask d. A /12 subnet mask
46. How many host addresses are available in a subnet with a subnet mask of 255.255.255.0 (CIDR notation /24)?
    a. 8 b. 126 c. 254 d. 65,534
47. If you have an IP address of 192.168.1.100 with subnet mask of 255.255.255.0, what is the network address for this IP?
    a. 192.168.1.0 b. 192.168.1.100 c. 192.168.0.0 d. 192.168.1.255
48. Which of the following is a private IP address range for IPv4?
    a. 192.168.100.1 - 192.168.100.254 c. 169.254.0.1 - 169.254.255.254
    b. 172.16.0.0 - 172.31.255.255 d. 10.0.0.1 - 10.255.255.255
49. In a Class C IP address (e.g., 192.168.1.0), how many bits are used for network portion and how many for host portion?
    a. 8 bits for network, 16 bits for host c. 24 bits for network, 8 bits for host
    b. 16 bits for network, 8 bits for host d. 32 bits for network, 0 bits for host
50. What is the loopback address in IPv4?
    a. 127.0.0.1 b. 0.0.0.0 c. 255.255.255.255 d. 192.168.0.1
51. Which of the following is a valid subnet mask in CIDR notation for a Class B IP address?
    a. /16 b. /24 c. /32 d. /8
52. Which of the following IP address ranges is reserved for multicast addresses? *
    a. 192.168.0.0 - 192.168.255.255 c. 172.16.0.0 - 172.31.255.255
    b. 239.0.0.0 - 239.255.255.255 d. 10.0.0.0 - 10.255.255.255
53. In a Class A IP address (e.g., 10.0.0.0), how many bits are used for the network portion and how many for host portion?
    a. 8 bits for network, 24 bits for host c. 24 bits for network, 8 bits for host
    b. 16 bits for network, 16 bits for host d. 32 bits for network, 0 bits for host
54. In CIDR notation, what does "/16" represent for a subnet mask?
    a. 255.255.255.0 b. 255.255.255.252 c. 255.255.0.0 d. 255.0.0.0

55. Which of the following IP address classes uses first octet for network portion and the remaining three octets for hosts?
    a. Class A b. Class B c. Class C d. Class D
56. Which IP version uses 128-bit addresses and is designed to replace IPv4 due to address exhaustion?
    a. IPv4 b. IPv5 c. IPv6 d. IPv8
57. If the IP address is 130.45.23.5, which IP address class does it belong to?
    a. Class A b. Class B c. Class C d. Class D
58. For the IP address 223.10.5.2, which IP address class does it belong to?
    a. Class A b. Class B c. Class C d. Class D
59. If the IP address is 200.34.56.78, which IP address class does it belong to?
    a. Class A b. Class B c. Class C d. Class D
60. Given the IP address 203.45.12.6, which IP address class does it belong to?
    a. Class A b. Class B c. Class C d. Class D
61. Is the IP address 172.16.25.1 a private or public IP address?
    a. Private b. Public
62. Is the IP address 203.54.76.89 a private or public IP address?
    a. Private b. Public
63. Does the IP address 192.168.0.10 fall into the private or public IP address range?
    a. Private b. Public
64. Is the IP address 129.42.13.5 a private or public IP address?
    a. Private b. Public
65. If the IP address is 10.20.30.40 and it belongs to a /24 subnet, what is the subnet mask?
    a. 255.0.0.0 b. 255.255.0.0 c. 255.255.255.0 d. 255.255.255.255

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