**Course Code: ITC305**　　　　　　　　　　　**Course Name: END**
**Time: 2 hour**　　　　　　　　　　　　　　　　**Max. Marks: 80**

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| Q1 | MCQs 2 Marks each |
|---|---|
| 1. | You want to ping a router on your network from interface Serial 0/0 and not the path in the routing table. How can you achieve this? |
| Option A: | This cannot be done; packets cannot disregard the routing table. |
| **Option B:** | Enter extended ping, and specify the exit interface. |
| Option C: | Enter the interface in configuration mode, and ping the remote router. |
| Option D: | Configure a temporary route for the router exiting the interface. |
|  |  |
| 2. | Which command on Windows will allow you to verify the path a packet gets routed through on the network? |
| **Option A:** | tracert 198.78.34.2 |
| Option B: | ping 198.78.34.2 |
| Option C: | traceroute 198.78.34.2 |
| Option D: | route print |
|  |  |
| 3. | Which command on Windows will allow you to verify your IP address, subnet mask, default gateway, and MAC address? |
| Option A: | Ip |
| **Option B:** | Ipconfig /all |
| Option C: | Ipstatus |
| Option D: | Hostname all |
|  |  |
| 4. | The process of HTTP asking TCP to send some data and making sure that it is received correctly is an example of what? |
| Option A: | Same-layer interaction |
| **Option B:** | Adjacent-layer interaction |
| Option C: | OSI model |
| Option D: | All of these answers are correct. |
|  |  |
| 5. | Which OSI layer defines the functions of logical network-wide addressing and routing? |
| Option A: | Layer 1 |
| Option B: | Layer 2 |
| **Option C:** | Layer 3 |
| Option D: | Layer 4 |
|  |  |
| 6. | Which OSI layer defines the standards for cabling and connectors? |

| Option A: | Layer 1 |
|---|---|
| Option B: | Layer 2 |
| Option C: | Layer 3 |
| Option D: | Layer 4 |
| | |
| 7. | Which of the following is true about Ethernet crossover cables for Fast Ethernet? |
| Option A: | Pins 1 and 2 are reversed on the other end of the cable. |
| **Option B:** | Pins 1 and 2 on one end of the cable connect to pins 3 and 6 on the other end of the cable. |
| Option C: | Pins 1 and 2 on one end of the cable connect to pins 3 and 4 on the other end of the cable |
| Option D: | None of the other answers is correct. |
| | |
| 8. | In the cabling for a leased line, which of the following typically connects to a four-wire line provided by a telco? |
| Option A: | Router serial interface without internal CSU/DSU |
| **Option B:** | CSU/DSU |
| Option C: | Router serial interface with internal transceiver |
| Option D: | Switch serial interface |
| | |
| 9. | Which of the following is a valid Class C IP address that can be assigned to a host? |
| Option A: | 1.1.1.1 |
| **Option B:** | 200.1.1.1 |
| Option C: | 128.128.128.128 |
| Option D: | 224.1.1.1 |
| | |
| 10. | In which of the following modes of the CLI could you type the command reload and expect the switch to reboot? |
| Option A: | User mode |
| **Option B:** | Enable mode |
| Option C: | Global configuration mode |
| Option D: | Interface configuration mode |
| | |
| 11. | What type of switch memory is used to store the configuration used by the switch when it is up and working? |
| **Option A:** | RAM |
| Option B: | ROM |
| Option C: | Flash |
| Option D: | NVRAM |
| | |
| 12. | In a LAN, which of the following terms best equates to the term VLAN? |
| Option A: | Collision domain |
| **Option B:** | Broadcast domain |
| Option C: | Subnet |
| Option D: | Single switch |
| | |

| 13. | Which of the following devices would be in the same collision domain as PC1? |
|---|---|
| **Option A:** | PC2, which is separated from PC1 by an Ethernet hub |
| Option B: | PC3, which is separated from PC1 by a transparent bridge |
| Option C: | PC4, which is separated from PC1 by an Ethernet switch |
| Option D: | PC5, which is separated from PC1 by a router |
| | |
| 14. | On a Cisco Catalyst switch, you issue a show mac address-table command. Which of the following answers list information you would likely see in most lines of output? (Choose two answers.) |
| Option A: | A MAC address |
| Option B: | An IP address |
| Option C: | A VLAN ID |
| Option D: | Type (broadcast, multicast, or unicast) |
| | |
| 15. | Which of the following commands might you see associated with the router CLI, but not with the switch CLI? |
| **Option A:** | The clock rate command |
| Option B: | The ip address address mask command |
| Option C: | The ip address dhcp command |
| Option D: | The interface vlan 1 command |
| | |
| 16. | Which of the following commands correctly configures a static route? |
| **Option A:** | ip route 10.1.3.0 255.255.255.0 10.1.130.253 |
| Option B: | ip route 10.1.3.0 serial 0 |
| Option C: | ip route 10.1.3.0 /24 10.1.130.253 |
| Option D: | ip route 10.1.3.0 /24 serial 0 |
| | |
| 17. | Which of the following are valid subnet IDs for network 192.168.9.0 using mask /29, assuming that mask /29 is used throughout the network? |
| **Option A:** | 192.168.9.144 |
| Option B: | 192.168.9.242 |
| Option C: | 192.168.9.58 |
| Option D: | 192.168.9.9 |
| | |
| 18. | Which of the following statements best describes what a switch does with a frame destined for an unknown unicast address? |
| Option A: | It forwards out all interfaces in the same VLAN except for the incoming interface. |
| Option B: | It forwards the frame out the one interface identified by the matching entry in the MAC address table. |
| Option C: | It compares the destination IP address to the destination MAC address. |
| Option D: | It compares the frame's incoming interface to the source MAC entry in the MAC address table. |
| | |
| 19. | Which of the following is required when configuring port security with sticky learning? |
| Option A: | Setting the maximum number of allowed MAC addresses on the interface with the switchport port-security maximum interface subcommand. |
| **Option B:** | Enabling port security with the switchport port-security interface subcommand. |
| Option C: | Defining the specific allowed MAC addresses using the switchport port-security mac-address interface subcommand. |

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| Option D: | All the other answers list required commands. |
| | |
| 20. | Which of the following commands do not list the IP address and mask of at least one interface? (Choose two answers.) |
| Option A: | show running-config |
| Option B: | show interfaces |
| Option C: | show version |
| **Option D:** | show ip interface brief |

| Q2 | Explain any 4 out of 6 | (5 marks each) |
|---|---|---|
| A | Cisco SONA framework | |
| B | Hierarchical internetworking model | |
| C | Enterprise internet edge design | |
| D | Cisco enterprise core layer | |
| E | Campus LAN switching | |
| F | Cisco datacenter network design | |

| Q3 | Write a short note on any 4 out of 6 | (5 marks each) |
|---|---|---|
| A | WAN network | |
| B | Explain IPv6 subnetting | |
| C | Enterprise security | |
| D | PPDIOO Lifecycle | |
| E | Software defined network | |
| F | Network monitoring | |