

## GES junior networking test

Total  
42

Please mark your answer. Always one option is correct if not stated.

- 1 How many bits has IPv6 address?**
  - a 32b
  - b 48b
  - c 16b
  - d 128b
  
- 2 What is the correct subnet mask for prefix "/22"?**
  - a 255.255.255.0
  - b 255.255.254.0
  - c 255.255.252.0
  - d 255.255.0.0
  
- 3 Which of the following is private IP address?**
  - a 12.0.0.1
  - b 172.15.14.36
  - c 168.172.19.39
  - d 192.168.24.43
  
- 4 There are two hosts connected to L2 switching topology, one with IP address 10.156.22.5/24, second with 10.156.23.4/24. Are they able to communicate? Why?**
  
  
  
  
  
  
  
  
  
- 5 How many broadcast domains are created when you segment a network with a 12-port switch?**
  - a 1
  - b 2
  - c 5
  - d 12
  
- 6 What is the function of a DHCP server?**
  - a Antivirus security server
  - b Automatic assignment of IP address
  - c Automatic assignment of MAC address
  - d Maintains Wi-fi connection
  
- 7 What happens when you run a "ping 206.190.60.37" command in your PC's command prompt?**
  - a Autoconfiguration of IP address 206.190.60.37 will start
  - b Error message log appears
  - c There is no command prompt in Windows OS
  - d PC sends out test packets to remote host

- 8 Which of the following is not type of layer 2 encapsulation?**
- a** PPP
  - b** STATIC
  - c** Frame-Relay
  - d** Ethernet
- 9 Which two IPv4 addresses represent valid host addresses for a subnet? (Choose two.) (2p)**
- a** 10.1.12.78/28
  - b** 10.1.12.113/28
  - c** 10.1.11.128/27
  - d** 10.1.11.31/27
- 10 What does "QoS" shortcut stand for?**
- a** Quantum of Space
  - b** Quantity of Subnets
  - c** Queue over Static
  - d** Quality of Service
- 11 Choose the correct command to configure a default static route (Gateway Of Last Resort) on a Cisco router.**
- a** ip route 0.0.0.0 0.0.0.0 Serial 0/0/0
  - b** ip route 1.1.1.1 1.1.1.1 212.212.1.1
  - c** ip route 192.168.1.1. 255.255.255.0 FastEthernet0
  - d** ip route 127.10.10.10 255.255.255.192 ATM0
- 12 You are asked to amend access list applied on Cisco router to filter TCP from host 10.156.22.5/24 to host 10.156.23.4/24. What access list config line has to be applied?**
- 13 What does OSPF shortcut stand for?**
- a** Other Site's Path Found
  - b** One Slot Per Fiber
  - c** Only Speed Provides Floating
  - d** Open Shortest Path First
- 14 What is the broadcast IP address of this subnet? 206.115.33.32/30**
- a** 206.115.33.32
  - b** 206.115.33.33
  - c** 206.115.33.34
  - d** 206.115.33.35
  - e** 206.115.33.36

**15 Define function of Default Gateway.**

**16 What is the preferred duplex setting on a Gigabit Ethernet port?**

- a half
- b semi
- c full
- d zero

**17 You get a call from a network administrator who tells you that he typed the following into his router:**

```
Router(config)#router ospf 1
Router(config-router)#network 10.0.0.0 255.0.0.0 area 0
```

**He tells you he still can't see any routes in the routing table. What configuration error did the administrator make?**

- a The wildcard mask is incorrect.
- b The OSPF area is wrong.
- c The OSPF Process ID is incorrect.
- d The AS configuration is wrong.

**18 Which command will display all the EIGRP feasible successor routes known to a router?**

- a show ip routes \*
- b show ip eigrp summary
- c show ip eigrp topology
- d show ip eigrp adjacencies

**19 What type of RJ45 UTP cable is used between switches?**

- a Crossover with a CSU/DSU
- b Crossover cable
- c Straight-through
- d Rollover cable

**20 Which command displays the configuration register setting?**

- a show ip ospf neighbors
- b show boot version
- c show version
- d show flash

**21 Which Cisco IOS interface command causes the following status of an interface?**

*FastEthernet0/1 is administratively down, line protocol is down*

- 22 Which of the following types of connections can use full duplex?(Choose two)(2p)**
- a** Hub to hub
  - b** Switch to host
  - c** Switch to switch
  - d** Switch to hub
- 23 What's the maximum length of CAT 5 UTP cable? (Beyond that, you run the risk of signal errors and other complications)**
- a** 50m
  - b** 100m
  - c** 150m
  - d** 1000m
- 24 What's the main purpose of HSRP? (2p)**
- 25 What is difference between HSRP and VRRP?**
- a** There is no difference, both are First Hop Redundancy Protocols
  - b** HSRP is open standard, VRRP is Cisco proprietary protocol
  - c** VRRP is open standard, HSRP is Cisco proprietary protocol
  - d** HSRP is enhancement of VRRP protocol
- 26 What is the admin distance of iBGP and eBGP?**
- a** iBGP = 100, eBGP = 10
  - b** iBGP = 200, eBGP = 20
  - c** iBGP = 20, eBGP = 200
  - d** iBGP = 100, eBGP = 20
- 27 Describe difference between NAT and PAT**
- 28 How does TCP establish connection?**
- a** Using flow & error control
  - b** It's connectionless protocol
  - c** using 3-way handshake
  - e** using PCM

- 29 What is PDU of OSI data-link layer?**
- a** packet
  - b** frame
  - c** segment
  - d** data
- 30 What happens to frame when arrives to router's interface?**
- a** frame is decapsulated to packet first
  - b** frame is encapsulated to packet first
  - c** destination IP address is examined first
  - d** router discards it
- 31 What is correct name of OSPF Area 0?**
- a** Network Area
  - b** Neighbor Area
  - c** Backbone Area
  - d** Root Area
- 32 How is frame tagged in native VLAN (in default setting) when sent over the trunk?**
- a** using dot1q tag (IEEE 802.1Q standard)
  - b** it's not tagged
  - c** using ISL tag
  - d** using dot1q tag 1 always (IEEE 802.1Q standard)
- 33 What types of spanning-tree protocols do you know and explain main differences (3 types at least) (2p)**
- 34 What is the difference between standard 802.1D and 802.1w?**
- 35 What is the purpose of Spanning Tree Protocol in a switched LAN?**
- a** To provide a mechanism for network monitoring in switched environments
  - b** To prevent routing loops in networks with redundant paths
  - c** To prevent switching loops in networks with redundant switched paths
  - d** To create collision domains
- 36 What is split horizon?**
- a** Information about a route should not be sent back in the direction from which the original update came.
  - b** It splits the traffic when you have a large bus (horizon) physical network.

- c** It holds the regular updates from broadcasting to a downed link.
- d** It prevents regular update messages from reinstating a route that has gone

**37**      **A router has learned three possible routes that could be used to reach a destination network. One route is from EIGRP and has a composite metric of 20514560. Another route is from OSPF with a metric of 782. The last is from RIPv2 and has a metric of 4. Which route or routes will the router install in the routing table? Explain why. (2p)**

- a** the OSPF route
- b** the EIGRP route
- c** the RIPv2 route
- d** all three routes will be applied into routing table