



BRAINWARE UNIVERSITY

Term End Examination 2023
Programme – M.Sc.(ANCS)-2022
Course Name – Routing Associate
Course Code - MNCS201
(Semester II)

Full Marks : 60

Time : 2:30 Hours

[The figure in the margin indicates full marks. Candidates are required to give their answers in their own words as far as practicable.]

Group-A

(Multiple Choice Type Question)

1 x 15=15

1. Choose the correct alternative from the following :

- (i) Write the administrative distance of OSPF.
 - a) 120
 - b) 100
 - c) 110
 - d) 90
- (ii) Focus the statement which is true about IPv6 addresses.
 - a) An IPv6 address is 32 bits long, represented in hexadecimal.
 - b) An IPv6 address is 148 bits long.
 - c) An IPv6 address is 128 bits long.
 - d) An IPv6 address is 124 bits long.
- (iii) If all OSPF routers in a single area are configured with the same priority value, assess the value which a router uses for the OSPF router ID in the absence of a loopback interface.
 - a) the IP address of the first Fast Ethernet interface.
 - b) the IP address of the console management interface.
 - c) The highest IP address of any physical interface.
 - d) the lowest IP address among its active interfaces.
- (iv) Write the name of protocol which can provide connection less communication between hosts.
 - a) TCP
 - b) IPX
 - c) IP
 - d) UDP
- (v) You are configuring a router and issue the command at the interface ethernet 1/0/0. Analyse the numbers 1/0/0.
 - a) Slot/port/interface
 - b) Slot/interface/port
 - c) Port/slot/port number
 - d) Slot/port adapter/port number
- (vi) Recognize the command from the followings which is run to show NVRAM content.
 - a) show run
 - b) show start

- c) show mem
d) show flash
- (vii) Recognize the IOS command which is used to create a backup copy of the IOS image of your router to a network server.
- a) copy flash tftp
b) backup image tftp
c) copy tftp flash
d) copy flash server
- (viii) You can press Control+Z in CLI mode of the router. Write the output which you can see at the terminal.
- a) log out of the router
b) Exists back to the privileged mode
c) Exists back to User exec mode
d) exit one step back from the current mode
- (ix) If routers in a single area are configured with the same priority value, justify the value which router uses for the OSPF Router ID in the absence of a loopback interface.
- a) The lowest IP address of any physical interface.
b) The lowest IP address of any logical interface.
c) The highest IP address of any physical interface.
d) The highest IP address of any logical interface.
- (x) Define which of the following statements is true regarding classless routing protocols.
- a) The use of discontinuous networks is not allowed.
b) RIPv1 is a classless routing protocol.
c) The use of variable length subnet masks is permitted.
d) RIPv2 supports classless routing.
- (xi) Select the address which is used on the internet for employing the TCP/IP protocols.
- a) Physical Address and Logical Address
b) Port Address
c) Specific Address
d) All of the above
- (xii) Select the correct field in IPv4 datagram which is not related to fragmentation.
- a) Flags
b) Type Of Service (TOS)
c) Offset
d) Identifier
- (xiii) Identify the correct option from the followings which is not applicable for IP protocol.
- a) Is connectionless
b) Offer unreliable service
c) Offer reliable service
d) None of the above
- (xiv) Identify the reason why you are using a router to segment the network at the main office.
- a) Routers generally cost less than switches.
b) Filtering can occur based on Layer 3 information.
c) Adding a router to the network decreases latency.
d) Broadcasts are eliminated.
- (xv) Select the command which you should use on display the configuration register setting.
- a) show version
b) show register
c) show flash
d) show boot

Group-B

(Short Answer Type Questions)

3 x 5=15

2. Describe IP address. (3)
3. Distinguish between 'Feasible Distance (FD)' and 'Reported Distance (RD)'. (3)
4. For troubleshooting purpose, we use the command 'show ip eigrp topology' in EIGRP. Analyze the use of this command. (3)
5. Explain the concept of split-horizon in EIGRP? (3)
6. Analyze the term 'Convergence' in EIGRP? (3)

OR

For troubleshooting purpose, we use the command 'show ip eigrp neighbours' in EIGRP. (3)
Analyze the use of this command.

Group-C
(Long Answer Type Questions) 5 x 6=30

- 7. Explain the requirements for neighbor relationship in EIGRP. (5)
- 8. Compare the advantages of EIGRP over the OSPF. (5)
- 9. Explain the term 'Advertised Distance' in EIGRP. (5)
- 10. Evaluate the benefit of dividing the entire network into areas. (5)
- 11. A junior network engineer is learning about mechanisms to prevent routing loops on EIGRP. (5)
Which valuable piece of information can the network engineer judge about split horizon on an EIGRP network?
- 12. Illustrate the different tables, used in OSPF. (5)

OR

Analyze the effect when we make priority of a OSPF router as “zero”. (5)
