



BRAINWARE UNIVERSITY

Term End Examination 2023-2024
Programme – M.Sc.(ANCS)-2022/M.Sc.(ANCS)-2023
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) Which routing protocol is commonly used in small to medium-sized networks and is characterized by its simplicity and ease of configuration but may suffer from slow convergence?
- a) OSPF
b) BGP
c) RIP
d) EIGRP
- (ii) What category of network technology refers to networks where multiple devices are connected in a non-broadcast manner, requiring a central device to manage communication?
- a) Point-to-Point
b) NBMA
c) Broadcast
d) Multicast
- (iii) Select the correct protocol which maintains neighbor adjacencies.
- a) RIPv2 and EIGRP
b) RIPv2
c) UDP and EIGRP
d) EIGRP
- (iv) Define which of the following routing protocols implement the diffusing update algorithm.
- a) IS-IS
b) EIGRP
c) IGRP
d) OSPF
- (v) Select the protocol that use cost as a metric.
- a) OSPF
b) BGP
c) RIP
d) BBGP
- (vi) Categorize the routing process based on which the Open Shortest Path First (OSPF) protocol is designed.
- a) Distance vector
b) Path vector

- c) Link State
d) Non distance vector
- (vii) Predict the size of Source and Destination IP address in IP header.
a) 4 bits
b) 8 bits
c) 16 bits
d) 32 bits
- (viii) Predict the correct answer from the following options which should be the physical path over which a message travels.
a) Path
b) Medium
c) Protocol
d) Route
- (ix) Select the one that is a set of rules that govern data communication.
a) Protocols
b) Standards
c) RFCs
d) Servers
- (x) Identify from the following options which extends a private network across public networks.
a) Local Area Network
b) Virtual Private Network
c) Enterprise private network
d) Storage Area Network
- (xi) Determine the feature that EIGRP can support .
a) VLSM/subnetting
b) Unequal cast load balancing
c) Auto summary
d) All of these
- (xii) Predict the time interval when EIGRP send the hello message.
a) 5 seconds (LAN), 60 seconds (WAN)
b) 15s
c) 5 seconds (LAN), 5 seconds (WAN)
d) 180s
- (xiii) Choose the correct Administrative distance for internal EIGRP.
a) 90
b) 110
c) 170
d) 91
- (xiv) Choose the multicast address used by EIGRP to send Hello packet.
a) 224.0.0.4
b) 224.0.0.8
c) 224.0.0.9
d) 224.0.0.10
- (xv) In OSPF, select the protocol which is used to discover neighbor routers automatically.
a) Link State protocol
b) Routing Information Protocol
c) Error-correction protocol
d) Hello protocol

Group-B

(Short Answer Type Questions)

3 x 5=15

2. Justify the role of an Autonomous System Boundary Router ASBR. (3)
3. What are the features of Distance vector routing protocol? (3)
4. Discuss about EIGRP Hello and Hold timer interval. (3)
5. Write about the multicast IP addresses, used by OSPF routers. (3)
6. Why we plan to use the command 'show ip eigrp neighbors'? (3)

OR

- List the output details of the command 'show ip eigrp topology'. (3)

Group-C

(Long Answer Type Questions)

5 x 6=30

7. Describe the composite metric of EIGRP protocol. (5)
8. Evaluate the steps of selecting Router ID in OSPF process. (5)
9. Illustrate the different tables used in OSPF for best route calculation. (5)

- 10. Explain the three basic LSA types of OSPF. (5)
 - 11. Conclude the reason why OSPF is called a loop-free protocol. (5)
 - 12. Focus on the different types of dynamic routing protocol with proper example. (5)
- OR**
- Illustrate the different types of network traffic. (5)
