



Library  
Brainware University  
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## BRAINWARE UNIVERSITY

Term End Examination 2022  
Programme – M.Sc.(ANCS)-2021  
Course Name – Routing Professional  
Course Code - MNCS301  
( Semester III )

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) The Open Shortest Path First(OSPF) protocol define an intra-domain routing protocol based on \_\_\_\_\_routing.
- |                    |                        |
|--------------------|------------------------|
| a) distance vector | b) path vector         |
| c) link state      | d) non distance vector |
- (ii) The term \_\_\_\_\_. define to which node or nodes in the network are responsible for the routing decision.
- |                   |                    |
|-------------------|--------------------|
| a) decision place | b) node place      |
| c) routing place  | d) switching place |
- (iii) Define the purposes of routing, the Internet is divided into \_\_\_\_\_.
- |                        |                        |
|------------------------|------------------------|
| a) wide area networks  | b) local area networks |
| c) autonomous networks | d) autonomous system   |
- (iv) Describe the function of Router in a network?
- |   |   |
|---|---|
| a) Forwards a packet to all outgoing links          | b) Determines on which outing link a packet is to be forwarded        |
| c) Forwards a packet to the next free outgoing link | d) Forwards a packet to all outgoing links except the originated link |
- (v) What is the size of Source and Destination IP address associate in IP header?
- |            |            |
|------------|------------|
| a) 4 bits  | b) 8 bits  |
| c) 16 bits | d) 32 bits |
- (vi) EIGRP metric can be indentified in terms of \_\_\_\_\_
- |                   |               |
|-------------------|---------------|
| a) K-values       | b) Hop Count  |
| c) Bandwidth only | d) Delay only |
- (vii) Explain where are EIGRP successor routes stored?
- |                               |  |
|-------------------------------|--|
| a) In the routing table only  | b) In the topology table only                  |
| c) In the neighbor table only | d) In the routing table and the topology table |

- (viii) Open Shortest Path First (OSPF) is also determine as \_\_\_\_\_  
a) Link state protocol  
b) Routing information protocol  
c) Error-correction protocol  
d) All of the above
- (ix) The computation of the shortest path in OSPF is usually calculate by \_\_\_\_\_  
a) Bellman-ford algorithm  
b) Dijkstra algorithm  
c) Routing information protocol  
d) Distance vector routing
- (x) If routers in a single area are configured with the same priority value, select what value does a router use 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
- (xi) Which of the following protocols classify VLSM, summarization, and discontinuous networking?  
a) EIGRP  
b) BGP  
c) HSRP  
d) All of the above
- (xii) Choose the administrative distance for internal EIGRP is \_\_\_\_\_  
a) 90  
b) 110  
c) 170  
d) 91
- (xiii) Choose the administrative distance for external EIGRP route is \_\_\_\_\_  
a) 90  
b) 110  
c) 170  
d) 100
- (xiv) Which of the following is used to manage and monitor the network?  
a) SNMP  
b) IP  
c) HTTP  
d) FTP
- (xv) Justify the reason of hold-downs used for?  
a) To prevent regular update messages from reinstating a route that has come back up  
b) To prevent regular update messages from reinstating a route that has gone down  
c) Information received on an interface cannot be sent back out the same interface  
d) To hold the routing table from being sent to another router

### Group-B

(Short Answer Type Questions)

3 x 5=15

2. Explain different BGP Message Types? (3)  
3. Explain the function of BGP TLL Security ? (3)  
4. What is the difference between TCP and UDP? (3)  
5. What is the difference between a Public IP address and a Private IP address? (3)  
6. What are the different types of loop prevention mechanisms in BGP? (3)

OR

What are different mode of configuration for BGP? (3)

### Group-C

(Long Answer Type Questions)

5 x 6=30

7. Describe BGP Matric Attributes. (5)  
8. Describe the parameters which must be matched for two routers to become neighbor in OSPF with proper example. (5)  
9. Explain the need of Autonomous System number in BGP? (5)  
10. Explain Virtual Gateway Redundancy in GLBP. (5)  
11. Write down the short notes on BGP Neighborhood relationships? (5)

12. What is the purpose of the subnets keyword when redistributing OSPF? (5)

OR

Can we use BGP instead of any IGP? Justify your answer with proper example. (5)

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