



BRAINWARE UNIVERSITY

Term End Examination 2022

Programme – M.Sc.(ANCS)-2022

Course Name – Computer Networks

Course Code - MNCS102

(Semester I)

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) Interpret that the BNC connector is used with
- | | |
|--------|----------------------|
| a) UTP | b) coaxial cable |
| c) STP | d) fiber-optic cable |
- (ii) Distinguish the remote login application?
- | | |
|-----------|---------|
| a) telnet | b) HTTP |
| c) DNS | d) FTP |
- (iii) Which protocol is used to send emails?
- | | |
|---------|----------|
| a) pop3 | b) smtp |
| c) dns | d) imap4 |
- (iv) Choose which of the following protocol is used to download emails locally?
- | | |
|---------|---------|
| a) SMTP | b) POP3 |
| c) FTP | d) SNMP |
- (v) Predict which of the following protocol is used for remote terminal connection service?
- | | |
|---------|-----------|
| a) RARP | b) UDP |
| c) FTP | d) TELNET |
- (vi) Which of the following is VLAN frame tagging type is configured on a Cisco switch?
- | | |
|--------|--------|
| a) VTP | b) ISL |
| c) CDP | d) RIP |
- (vii) When a new trunk link is configured on an IOS-based switch, justify which VLANs are allowed over the link?
- | | |
|---|--|
| a) By default, all VLANs are allowed on the trunk | b) No VLAN's are allowed, you must configure each VLAN by hand |
| c) Only configured VLAN's are allowed on the link | d) Only extended VLAN's are allowed by default |
- (viii) Two or more computers connected close together in a local area e.g. building or office is

- called?
- a) WAN
c) The Internet
- b) LAN
d) Virtual Network
- (ix) Token Ring is a data link technology for ?
- a) WAN
c) LAN
- b) MAN
d) VPN
- (x) A networking device used to connect two LAN segments?
- a) Bridge
c) Hub
- b) Router
d) Broad band
- (xi) A layer 3 switch works in .
- a) Physical layer
c) Network layer
- b) Datalink layer
d) Both datalink and network layer
- (xii) CAT 5 UTP cable has _____ pair of cables .
- a) 5
c) 2
- b) 4
d) 3
- (xiii) Which of the following is private IP address?
- a) 12.0.0.1
c) 172.20.14.36
- b) 168.172.19.39
d) 172.33.194.30
- (xiv) Which of the address below is available for host addresses on the subnet 192.168.15.16/28
- a) 192.168.15.57
c) 192.168.15.29
- b) 192.168.15.14
d) 192.168.15.33
- (xv) Which transport layer port is used in HTTPS?
- a) 80
c) 20
- b) 443
d) 21

Group-B

(Short Answer Type Questions)

3 x 5=15

2. Describe the "Administrative distance" value with example. (3)
3. Make a chart for the components those can be used to build a LAN (3)
4. Calculate and write the CIDR value if we need 122 host ip address in a network. (3)
5. Focus on the layer 2 MAC address. (3)

OR

- Differentiate the use of Straight Cable Crossover Cable (3)
6. Develop the idea of using different connectors with different cable types. (3)

OR

- Express the problems of WLAN and plan to improve the signal quality. (3)

Group-C

(Long Answer Type Questions)

5 x 6=30

7. Construct the features of OSPF to overcome the issues of Distance vector Rouring Protocol. (5)
8. Recall the layers of OSI model and their functions briefly. (5)
9. "Calculate the address 192.168.10.125/26, give the following answer: 1. What is the Subnet Mask? 2. What is the Network address? 3. How many valid Hosts are available here? 4. Write down the valid range of IP Addresses. 5. What is the Broadcast Address?" (5)
10. Discuss the functions of Telnet, NTP, SMTP, ICMP, POP3,Protocol. (5)
11. Focus on different types of VTP modes. (5)

OR

- Explain the functions of the following protocols: ARP, RARP, HTTPS,FTP and SNMP (5)

12. Argue the advantage and disadvantage of Static Routing

(5)

OR

Compare the color code Of TIA/EIA 568A and 568B.

(5)
