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Barasat, Kolkata -70012.

BRAINWARE UNIVERSITY

Term End Examination 2023

Programme – Dip.CSE-2018/Dip.CSE-2019/Dip.CSE-2020

Course Name – Computer Network

Course Code - DCSE603

(Semester VI)

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) Identify which topology taps are used?

- | | |
|---------|---------|
| a) Bus | b) Star |
| c) Mesh | d) Ring |

(ii) Define A _____ is a device that forwards packets between networks by processing the routing information included in the packet.-

- | | |
|-----------|-----------|
| a) Bridge | b) Router |
| c) Hub | d) Switch |

(iii) Define A set of rules that governs data communication is called

- | | |
|--------------|--------------|
| a) Protocols | b) Standards |
| c) RFC | d) N one |

(iv) To create a loop less technology, a bridge can use

- | | |
|-------------------------|----------------------------|
| a) Prim's algorithm | b) Spanning tree algorithm |
| c) Marshall's algorithm | d) None of these |

(v) identify Which of the following is not a cause of LAN congestion?

- | | |
|---|--|
| a) Too many hosts in a broadcast domain | b) Adding switches for connectivity to the network |
| c) Broadcast storms | d) Low bandwidth |

(vi) Identify You have a network the needs 29 subnets while maximizing the number of hosts addresses available on each subnet. indicate many bits must you borrow from the host field to provide the correct subnet mask?

- | | |
|------|------|
| a) 2 | b) 3 |
| c) 4 | d) 5 |

(vii) Select A virtual local area network(VLAN) is configured by

- | | |
|-------------------|------------------|
| a) Hardware | b) Software |
| c) Protocol stack | d) None of these |

(viii) TraceWhat is data encryption standard

- a) Block cipher
c) Bit cipher
- b) Stream cipher
d) Byte cipher
- (ix) EIGRP sends a hello message after every _____ seconds
- a) 5 seconds (LAN), 60 seconds
c) 15s
- b) 5 seconds (LAN), 5 seconds
d) 180s
- (x) In classless addressing, there are no classes but addresses are still granted in _____
- a) Blocks
c) Ips
- b) Segment
d) Sizes(
- (xi) SSH can be used in only _____
- a) Unix-like operating systems
c) Mac
- b) Windows
d) Both unix-like and windows systems
- (xii) Data in the Network layer is transferred in the form of
- a) layers
c) bytes
- b) packets
d) bits
- (xiii) The Network layer contains which hardware device?
- a) Routers,bridges
c) Bridges and switches
- b) Bridges only
d) Routers, bridges and switches.
- (xiv) Discuss Which of the following class of IP addresses is utilized for multicasting?
- a) Class A
c) Class C
- b) Class B
d) Class D
- (xv) Explain the network layer concerns with
- a) Bits
c) packet
- b) frames
d) None of these

Group-B

(Short Answer Type Questions)

3 x 5=15

2. Differentiate between Hub, Switch, and Router? (3)
3. Discuss the CSMA/CD method of medium access in Ethernet LANs. (3)
4. Explain about the different types of connecting devices in computer networks (3)
5. Describe Routing Information Protocol(RIP). (3)
6. Explain about Sliding Window Protocols. (3)

OR

Distinguish between Virtual-Circuit and Data gram Networks. (3)

Group-C

(Long Answer Type Questions)

5 x 6=30

7. Discuss various types of networks topologies in computer network (5)
8. Explain IPV4 datagram format (5)
9. State the advantages and disadvantages of implementing NAT. (5)
10. Describe MAC address format (5)
11. Describe IP datagram (5)
12. Describe Cryptography (5)

OR

Identify are the advantages & disadvantages of public key encryption? (5)