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) Explain which of the following is not a function of a router?

a) Packet Switching
b) Packet Filtering
c) Internetwork communication
d) Forwarding broadcasts by default

(ii) Select ICMP is primarily used for _____

a) error and diagnostic functions
b) addressing
c) forwarding
d) routing

(iii) Define which are the methods to move data through a network of links and switches?

a) Packet switching
b) Circuit switching
c) Both (a) and (b)
d) Line Switching

(iv) State A 4 byte IP address consists of _____

a) only network address
b) only host address
c) network address & host address
d) network address & MAC addres

(v) Select which of the following protocols uses both TCP and UDP?

a) FTP
b) SMTP
c) TELNET
d) DNS

(vi) Trace Application layer protocol defines _____

a) Types of messages exchanged
b) Message format, syntax and semantics
c) Rules for when and how processes send and respond to messages
d) All of these

(vii) Identify the subnetwork number of a host with an IP address of 172.16.66.0/21?

a) 172.16.36.0
b) 172.16.48.0
c) 172.16.64.0
d) 172.16.0.0

(viii) Select What class of IP address provides a maximum of only 254 host addresses per network ID?

a) Class A
b) Class C
c) Class B
d) Class D

(ix) Communication offered by TCP is _____ Justify
    a) Full-duplex   b) Half-duplex
    c) Semi-duplex   d) Byte by byte

(x) TraceIn segment header, sequence number and acknowledgement number fields refer to _____
    a) Byte number   b) Buffer number
    c) Segment number   d) Acknowledgment

(xi) When an HTTP document must be retrieved from a location other than the local machine, which layer of the OSI model must be accessed first?
    a) Presentation layer   b) Application layer
    c) Transport layer   d) Network layer

(xii) Identify The network address of 172.16.0.0./19 provides how many subnets and hosts
    a) 7 subnets ,2046 hosts each   b) 8 subnets,2046 hosts each
    c) 8 subnets,8190 hosts each   d) 7 subnets,30 hosts each

(xiii) Which of the following protocols uses both TCP and UDP?-justfy
    a) FTP   b) SMTP
    c) TELNET   d) DNS

(xiv) Identify the data communication method is used to transmit the data over a serial communication link?
    a) Full-duplex   b) Simplex
    c) Half-duplex   d) None of these

(xv) Describe which of the following is a transport layer protocol used in networking?
    a) TCP   b) UDP
    c) Both TCP and UDP   d) None of these

Group-B
(Short Answer Type Questions)
3 x 5=15

2. Deifne HTTP and what port does it use?   (3)
3. Explain frame format of the HDLC protocol   (3)
4. Define the function of Network Layer?   (3)
5. Classify of Internet Addresses in IP version4? Mention their range, format and usage.   (3)
6. Discuss about point-point link?   (3)

OR

How does hierarchical routing better than other routing techniques? Describe.   (3)

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

7. Define Protocol.   (5)
8. Difference between flow control and error control-Explain   (5)
9. Compare between Go-Back-N ARQ and Stop-and-Wait ARQ methods   (5)
10. What do you mean by pure ALOHA and slotted ALOHA? Explain   (5)
11. Discuss the various techniques to improve quality of service   (5)
12. Compute Checksum for for both sender and receiver side for the data:7,11,12,0,6   (5)

OR

Explain Leaky Bucket algorithm   (5)

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