



BRAINWARE UNIVERSITY

Term End Examination 2023-2024
Programme – B.Sc.(ANCS)-Hons-2023
Course Name – Computer Networks
Course Code - BNC10101
(Semester I)

Library
Brainware University
308, Ramkrishnapur Road, Barasat
Kolkata, West Bengal-700125

Full Marks : 60

[The figure in the margin indicates full marks. Candidates are required to give their answers in their own words as far as practicable.]

Time : 2:30 Hours

Group-A

(Multiple Choice Type Question)

1 x 15=15

1. Choose the correct alternative from the following :

- (i) Stop-and-wait is a name for the _____ technique.
- a) Line discipline
b) Flow control
c) Error control
d) Session management
- (ii) The network layer is related with _____ .
- a) bits
b) frames
c) packets
d) segments
- (iii) Select the primarily use of ICMP.
- a) error and diagnostic functions
b) physical addressing
c) IP addressing
d) none of the mentioned
- (iv) Determine the maximum range of Bluetooth Technology.
- a) 10 meters
b) 100 meters
c) 1000 meters
d) 10 kilometers
- (v) Select the name of the transmission type for the communication between a computer and a keyboard.
- a) Automatic
b) Half-duplex
c) Full-duplex
d) Simplex
- (vi) Identify the job of a node in computer network.
- a) the computer that originates the data
b) the computer that routes the data
c) the computer that terminates the data
d) all of the mentioned
- (vii) Identify the network type of Bluetooth.
- a) PAN
b) LAN
c) WAN
d) MAN
- (viii) Name the device that forwards packets between networks by processing the routing information included in the packet.
- a) Bridge
b) Firewall
c) Router
d) Repeater

Library
Brainware University
398, Ramkrishna Road, Barasat
Kolkata, W.B. Bengal-700125

- (ix) Name the first step in troubleshooting a LAN system issue.
 - a) Gathering information about the problem
 - b) Testing the hardware
 - c) Checking the network settings
 - d) Rebooting the system
- (x) Determine the common cause of slow network performance on a LAN system.
 - a) Insufficient bandwidth
 - b) Outdated hardware
 - c) Insufficient bandwidth
 - d) Outdated hardware
- (xi) Determine in which topology there is a central controller or hub?
 - a) Star
 - b) Mesh
 - c) Ring
 - d) Bus
- (xii) How many layers operate in the OSI model?
 - a) 4
 - b) 5
 - c) 6
 - d) 7
- (xiii) Identify the layer, responsible for the process to process delivery.
 - a) Physical
 - b) Data link
 - c) Network
 - d) Transport
- (xiv) Identify a Wireless Transmission among the following:
 - a) radio waves
 - b) microwaves
 - c) infrared
 - d) all of the mentioned
- (xv) Communication applied by TCP is _____.
 - a) Full-duplex
 - b) Half-duplex
 - c) Simplex
 - d) Semi-duplex

Group-B
(Short Answer Type Questions)

3 x 5=15

- 2. Examine the differences between CSMA/CD and CSMA/CA. (3)
- 3. Explain the TCP/IP model's network access layer. (3)
- 4. Describe the functioning of the Internet. (3)
- 5. Explain the characteristics of different types of fiber optic cable. (3)
- 6. Evaluate the operation of software tools like network monitor. (3)

OR

Analyze the procedure of Token management in a Token Ring network. (3)

Group-C
(Long Answer Type Questions)

5 x 6=30

- 7. Illustrate the header structure of a TCP Segment. (5)
- 8. Using a suitable diagram, explain star topology with its advantages and disadvantages. (5)
- 9. Discuss about the functions of the protocols related to Email. (5)
- 10. Discuss about various types of broadband technologies. (5)
- 11. Differentiate between the types of Network Interface Card. (5)
- 12. Summarize the use of ARP with commands. (5)

OR

Consider Gigabit Ethernet and distinguish the differences from other Ethernet standards. (5)
