



## BRAINWARE UNIVERSITY

Term End Examination 2023-2024  
Programme – Dip.CSE-2020/Dip.CSE-2021  
Course Name – PC Hardware and Networking  
Course Code - DCSE304  
( Semester III )

LIBRARY  
Brainware University  
Barasat, Kolkata - 700122

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) Indicate that the minimum number of connecting wires are needed in
- |                  |                  |
|------------------|------------------|
| a) Ring Topology | b) Star Topology |
| c) Mesh Topology | d) Bus Topology  |
- (ii) In CAT5/CAT6 type cable, how many wires are there? Select the correct option
- |      |       |
|------|-------|
| a) 2 | b) 6  |
| c) 8 | d) 15 |
- (iii) In a class A IP address, Network ID is discovered as
- |               |                |
|---------------|----------------|
| a) First Byte | b) Second Byte |
| c) Third Byte | d) Fourth Byte |
- (iv) Observe the following that uses simplex communication
- |              |                                  |
|--------------|----------------------------------|
| a) Telephone | b) Television                    |
| c) Radio     | d) Both (Television) and (Radio) |
- (v) Predict one that is not a Network topology?
- |         |                  |
|---------|------------------|
| a) Ring | b) Star          |
| c) Mesh | d) None of these |
- (vi) Calculate that TCP/IP network model consist of \_\_\_\_\_ number of layers
- |      |      |
|------|------|
| a) 5 | b) 7 |
| c) 6 | d) 8 |
- (vii) Discover the need of Satellite communication
- |        |                  |
|--------|------------------|
| a) LAN | b) MAN           |
| c) WAN | d) None of these |
- (viii) Starting with 110 as first octet discover the class of IP Address?
- |            |            |
|------------|------------|
| a) Class A | b) Class B |
| c) Class C | d) Class D |
- (ix) Calculate that IPV4 Address is of \_\_\_\_\_ Byte
- |       |      |
|-------|------|
| a) 10 | b) 8 |
|-------|------|

- (x) In CAT6 type cable, how many wires are there? Select the correct alternative  
a) 2  
b) 6  
c) 8  
d) 15
- (xi) Which of the following network topology is most advantageous? Select the correct option  
a) Bus Topology  
b) Ring Topology  
c) Star Topology  
d) Hybrid Topology
- (xii) The device is used to connect a number of LANs is \_\_\_\_\_ Select the correct option  
a) Switch  
b) Bridge  
c) Router  
d) Hub
- (xiii) Cache Memory is one type of \_\_\_\_\_ Choose the correct alternative  
a) Secondary Memory  
b) Primary Memory  
c) Auxiliary Memory  
d) None of This
- (xiv) Select the size of an MAC address is  
a) 1 Byte  
b) 2 Byte  
c) 4 Byte  
d) 6 Byte
- (xv) In mesh topology, if number of node is n, then show the total number of link are  
a) n  
b) 2n  
c)  $n(n-1)/2$   
d)  $n(n+1)/2$

**Group-B**

(Short Answer Type Questions)

3 x 5=15

2. Define the basic function of a monitor in a computer system. (3)
3. Calculate the total number of pixels in a monitor with a resolution of 1920x1080. (3)
4. Write three advantages of using a computer network. (3)
5. Briefly analyse the different colour coded wires in a SMPS. (3)
6. Write down the advantages and limitations of the different transmission modes present in a network. (3)

**OR**

Write short notes on different network devices. (3)

**Group-C**

(Long Answer Type Questions)

5 x 6=30

7. Describe different parts of an ISA Computer. (5)
8. Write short notes on different types of softwares. (5)
9. Discuss about different types of ROM. (5)
10. Write down the step by step processes to check output voltages in a SMPS. (5)
11. Briefly discuss about different color coded wires in a SMPS. (5)
12. Discuss about different types of networking/internetworking devices. (5)

**OR**

Write a short note on TCP/IP networking model. (5)

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