



# MAULANA ABUL KALAM AZAD UNIVERSITY OF TECHNOLOGY, WEST BENGAL

Paper Code : BCAC502 Computer Networking

UPID : 500128

**Time Allotted : 3 Hours**

**Full Marks : 70**

*The Figures in the margin indicate full marks.*

*Candidate are required to give their answers in their own words as far as practicable*

### **Group-A (Very Short Answer Type Question)**

1. Answer any ten of the following :

[ 1 x 10 = 10 ]

- (I) What is the size of MAC Address?
- (II) \_\_\_\_\_ defines the variations in the packet delay.
- (III) UDP stands for \_\_\_\_\_.
- (IV) What is DNS?
- (V) What is Circuit switching?
- (VI) EBCDIC uses \_\_\_\_\_ bits for each character.
  - (a) Six
  - (b) Seven
  - (c) Eight
  - (d) Two
- (VII) Header of a frame generally contains \_\_\_\_\_
  - (a) synchronization bytes
  - (b) addresses
  - (c) frame identifier
  - (d) all of the mentioned
- (VIII) CSMA stands for
  - (a) carrier sense multiple access
  - (b) collision sense multiple access
  - (c) carrier sense multiuser access
  - (d) collision sense multiuser access
- (IX) In virtual circuit network each packet contains \_\_\_\_\_.
- (X) Write one difference between UDP and TCP.
- (XI) Differentiate between HTTP and HTTPS.
- (XII) The digital signal service has \_\_\_\_\_ levels.
  - (a) Five
  - (b) Seven
  - (c) Six
  - (d) Eight

### **Group-B (Short Answer Type Question)**

Answer any three of the following :

[ 5 x 3 = 15 ]

2. What do you understand by data communication ? Explain various components of data communication. [5]
3. What is token ring and token bus? [5]
4. Differentiate between Circuit and Packet switching. What is message switching? [5]
5. What is class A in Classful IP Addressing? [5]
6. Write two difference between IPv4 and IPv6? What is NAT? What will be the Number of networks in class B IP Address? [5]

### **Group-C (Long Answer Type Question)**

Answer any three of the following :

[ 15 x 3 = 45 ]

7. (a) What is meant by random access method? give example of random access protocols. [ 5 ]  
 (b) Write a short note on the Collision - free protocols. [ 5 ]  
 (c) How TDM differs from TDMA? [ 5 ]
8. (a) Difference between P2P and Client/Server Architecture. [ 5 ]  
 (b) What is Tree Topology? [ 2 ]  
 (c) Write advantages of Star, Tree and Ring Topology. [ 8 ]
9. (a) Difference between Router and Switch? [ 5 ]  
 (b) How does HTTPS help authenticate web servers? [ 7 ]  
 (c) Difference between HTTPS and HTTP? [ 3 ]
10. (a) What is meant by segmentation? [ 3 ]  
 (b) What is meant by Concatenation? [ 2 ]  
 (c) What is rate based design? [ 2 ]  
 (d) Define Gateway. [ 4 ]

- (e) List out the user related attributes. [ 2 ]
  - (f) What are the networks related attributes? [ 2 ]
11. (a) What is WDM? [ 3 ]
- (b) Disadvantages and Advantages of WDM. [ 7 ]
- (c) Difference between TDM and FDM. [ 5 ]

\*\*\* END OF PAPER \*\*\*