

K21P 4709

Reg. No. : .....

Name : .....

I Semester M.C.A. Degree (C.B.S.S. – Reg./Supple./Imp.)  
Examination, November 2021  
(2020 Admission Onwards)

**MCA1C04 : DATA COMMUNICATION AND COMPUTER NETWORK**

Time : 3 Hours

Max. Marks : 60

PART – A

Answer **all** questions, **each** question carries **two** marks.

1. Write a note on network and types of connection. 2
2. Explain about Mesh, Star and Hybrid topology. 2
3. Using a diagram, explain the working of packet switching and message switching. 2
4. Explain about periodic analog signals and nonperiodic digital signals. 2
5. Explain about Bit error and Burst error. 2
6. Explain about Flow and Error Control. 2
7. Explain about Dijkstra algorithm. 2
8. Explain about Transition from IPv4 to IPv6. 2
9. Write a note on UDP and SCTP. 2
10. Explain about Cryptography. 2

(10×2=20)

P.T.O.



## PART – B

Answer **all** questions. **Each** question carries **eight** marks.

11. a) Explain about TCP/IP model. 8  
OR  
b) Explain about OSI model. 8
12. a) Explain about Analog-To-Digital Conversion. 8  
OR  
b) Explain about various types of Transmission modes. 8
13. a) Explain about Error Correction techniques. 8  
OR  
b) Explain about Data link control. 8
14. a) Explain about different networking and internetworking. 8  
OR  
b) Explain about different Internet protocols IPv4. 8
15. a) Explain about Electronic mail. 8  
OR  
b) Explain about Congestion control. 8

(5×8=40)