

Total No. of Questions : 5]

SEAT No. :

PA-1018

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S.Y. B.Sc.

COMPUTER SCIENCE

CS-242: Computer Networks - I (Paper - II)

(2019 Pattern) (Semester - IV) (24122)

Time : 2 Hours]

[Max. Marks : 35

Instructions to the candidates :

- 1) *All questions are compulsory.*
- 2) *Neat diagrams must be drawn wherever necessary.*

Q1) Attempt any Eight of the following :

[8 × 1 = 8]

- a) List components of data communication.
- b) What is data communication?
- c) Define Protocols.
- d) List any two channelization protocols.
- e) State any two applications of wireless LAN.
- f) What is bandwidth?
- g) Define congestion.
- h) What is Routing?
- i) What is a Port Number?
- j) What is internetworking?

P.T.O.

Q2) Attempt any Four of the following : **[4 × 2 = 8]**

- a) What is Computer Network? Write any four characteristics of Computer Network.
- b) What is LAN? Write any two advantages of LAN.
- c) Consider a noiseless channel with a bandwidth of 4000 Hz transmitting a signal with two signal levels. What will be the maximum bit rate?
- d) Write any four application of Bluetooth technology.
- e) Change the following IPv4 address from binary notation to dotted decimal notation.
 - i) 10000001 00001011 00001011 11101111
 - ii) 11000001 10000011 00011011 11111111

Q3) Attempt any two of the following : **[2 × 4 = 8]**

- a) Compare OSI Reference Model and TCP/IP model.
- b) Explain the important design issues of the data link layer.
- c) Explain the different services offered by the Network layer.

Q4) Attempt any two of the following : **[2 × 4 = 8]**

- a) Write any four differences between Fast ethernet and Gigabit ethernet.
- b) Write any eight features of IPv6 protocol.
- c) Explain any four features supported by TCP.

Q5) Attempt any one of the following : **[1 × 3 = 3]**

- a) Explain datagram format of UDP.
- b) Define Pulling.

