

U.G. 3rd Semester Examination - 2021**BCA****Course Code : BBCACCHT301****Course Title : Computer Networks**

Full Marks : 40

Time : 2 Hours

*The figures in the right-hand margin indicate marks.**Candidates are required to give their answers in their own words as far as practicable.*

1. Answer any **ten** questions: 1×10=10
- a) Define Logical IP.
 - b) What is the range of IP address for the devices belonging to class B?
 - c) What do you mean by Gateways?
 - d) Compare between bit rate and baud rate.
 - e) Why multiplexing is used?
 - f) What is the need of framing in data communication?
 - g) When does congestion control is required?
 - h) Write the limitations of OSI model.

- i) Write the function of session layer in OSI model.
- j) What is FDM? Give one example.
- k) What do you mean by star topology?
- l) What is Socket?
- m) What is connection oriented service? Give one example.
- n) Write the difference between HDLC and SDLC protocol.
- o) What is service access point?

2. Answer any **five** questions : 2×5=10
- a) Which switching technique is better for a call and why?
 - b) Write the relationship between service and protocols.
 - c) Write the advantage of Bus topology over Ring topology.
 - d) Write the difference between ASK and FSK.
 - e) Write the advantages of fibre cable over Co-axial cable.

- f) A TV channel is altering its programme along with advertisement – Is it TDM or FDM? – Justify.
- g) Write the principle behind link state routing algorithm.
- h) What do you mean by ICMP and IGMP?

3. Answer any **two** questions : 5×2=10

- a) Describe the two types of TDM.
- b) What do you mean by data communication? List two ways in which OSI model and TCP/IP reference model are same. Now list two ways in which they differ. 1+2+2=5
- c) Compare between synchronous and asynchronous transmission. Write the advantages of packet switching over message switching. What is multipath fading? 2+2+1=5

4. Answer any **one** question : 10×1=10

- a) i) Why the window is called sliding in Sliding Window Protocol?
- ii) Describe the working of stop-and-wait protocol. 2+8

- b) i) How is the performance of CSMA/CD better than CSMA?
- ii) Describe the frame format of Token Ring. 4+6
- c) i) Discuss any one type of X.25 communication channel.
- ii) Briefly describe the major entities associated with X.25. 5+5
