

2022

**COMPUTER SCIENCE**

[HONOURS]

(CBCS)

**(B.Sc. Third Semester End Examination-2022)**

**PAPER-CC7T**

**[Computer Network]**

*Full Marks: 40*

*Time: 02 Hrs*

*The figures in the right hand margin indicate marks*

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

*Illustrate the answers wherever necessary*

**Group-A**

**1. Answer any five questions of the following: 5x2=10**

- i) Write the difference between frame, packet and segment.
- ii) What is DNS name resolution function?
- iii) What is the purpose stuffing what is the different types of stuffing
- iv) Compare between Rz and NRZ. Digital signa with suitable example
- v) Compare between IPV4 and IpV6 addressing.
- vi) What is data channel?
- vii) What is CRC?

(2)

**Group-B**

**Answer any four questions of the following: 4x5 = 20**

2. What is multiple access protocol explain different variant of CSMA protocol (1 persistent, non persistent, P-Persistent) 5
3. Compare between TCP and UDP protocol? Why UDP is called connectionless protocol
4. What is firewall why are these used? What is classless addressing?
5. IP address 129.22.10.1 resides in which class? What is the maximum number of device can be added in this network and what is the default subnet mask of this IP address? 1+2+2
6. What is a proxy Server? Discuss its application.
7. Discuss Pure ALOHA. Give its efficiency and utility.

**Group -C**

**Answer any one question: 1x10 = 10**

8. Draw the signal pulse for 1010110 using Manchester and differential Manchester encoding and explain briefly? What are the different task performed by transport layer? What do you mean by Ethernet? What is the IEEE code for Ethernet? Explain the frame structure of Ethernet? Explain HTTP protocol briefly. 3+2+1+1+3
9. Discuss various topology for networking with their usage.

(3)

- b) Explain the Amplitude shift keying(ASK) and frequency shift keying (FSK) for modulation of signals to transmit digital data with analog signals. 5+5

-----