

Please check that this question paper contains 9 questions and 2 printed pages within first ten minutes.

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Uni. Roll No.

Program: B.Tech. (Batch 2018 onward)

Semester: 3rd

Name of Subject: Computer Networks

Subject Code: PCCS-102

Paper ID: 16011

MORNING

12 MAY 2023

Time Allowed: 03 Hours

Max. Marks: 60

NOTE:

- 1) Parts A and B are compulsory
- 2) Part-C has Two Questions Q8 and Q9. Both are compulsory, but with internal choice
- 3) Any missing data may be assumed appropriately

Part – A

[Marks: 02 each]

Q1.

- a) Explain Wired LAN, Wireless LAN and Virtual LAN, in brief
- b) Difference between Error Correction and Error Detection
- c) Classify the meaning of Header Length in IPv4
- d) Describe the major responsibilities of Network Layer
- e) Compare Frequency division multiplexing and Time division multiplexing in brief
- f) Illustrate logical link control layer and medium access control layer

Part – B

[Marks: 04 each]

- Q2.** Interpret Application Layer protocols – HTTP, TELNET, SNMP and FTP
- Q3.** Explain Leaky Bucket and Token Bucket algorithm with example.
- Q4.** Define Stop and Wait and Go back-N ARQ with neat and clean diagram.
- Q5.** Compare circuit switching and packet switching
- Q6.** Write a note on Congestion Control techniques
- Q7.** Elaborate the concept of End-to-End Connection between Hosts and Flow Control in reference to transport layer

Part – C**[Marks: 12 each]**

- Q8.** Describe CRC in detail, also solve the given statement using CRC if
Divisor is = 1011 and Dividend is = 1001

OR

Discuss in detail multiple access protocols- Pure ALOHA, Slotted ALOHA, CSMA/CD and CSMA/CA.

- Q9.** Illustrate IPv4 and IPv6 in detail with header formats

OR

Compare and contrast TCP and UDP in detail with header formats, also write down list of protocols that are under TCP and UDP protocols category.
