

EVENING
11 MAR 2021

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

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 Hop to Hop delivery and Host to Host Delivery
- c) Classify the meaning of Header Length in IPv4
- d) Describe the major responsibilities of Data Link Layer
- e) Is ARP protocol is used to acquire the MAC address of a host whose IP address is known? If yes, explain
- f) Illustrate Fragmentation in Network Layer

Part – B

[Marks: 04 each]

- Q2. Interpret Application Layer protocols – DNS, HTTP, HTTPS, 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? Which one of them is faster and why?
- Q6. Write a note on Classful and Classless Addressing? Also, explain different classes of IP addressing.

Q7. Change the following IPv4 addresses from binary to dotted decimal

10000001 00001011 00001011 11101111
11000001 10000011 00011011 11111111
01101111 00111000 00101101 01001110
11011101 00100010 00000111 01010010

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.

Find out the class of each protocol

192.168.0.10

201.20.30.40

128.11.3.31

221.34.7.82

111.56.45.78

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.
