Roll No											

PRESIDENCY UNIVERSITY
BENGALURU

SCHOOL OF ENGINEERING
MID TERM EXAMINATION - OCT 2023

Semester : Semester III - 2022

Course Code : CSE2011

Course Name : Sem III - CSE2011 - Data Communications and Computer Networks

Program : B.TECH

Date : 31-OCT-2023

Time : 11:30AM -1:00PM

Max Marks : 50

Weightage : 25%

Instructions:
(i) Read all questions carefully and answer accordingly.
(ii) Question paper consists of 3 parts.
(iii) Scientific and non-programmable calculator are permitted.
(iv) Do not write any information on the question paper other than Roll Number.

PART A

ANSWER ALL THE QUESTIONS **(5 X 2 = 10M)**

1. Define Topology.List different topologies in the network.

(CO1) [Knowledge]

2. List any two HTTP response status codes and associated phrases

(CO1) [Knowledge]

3. What is DNS?Explain different levels of DNS in short.

(CO1) [Knowledge]

4. Identify and write the related layer for the following responsibility of TCP/IP model:
   a. Route determination
   b. Flow control
   c. Interface to transmission media
   d. Provides access for the end user

(CO1) [Knowledge]

5. Is '56.311.2.4 ' a valid IPv4 address? State the reason.

(CO2) [Knowledge]

PART B

ANSWER ALL THE QUESTIONS **(4 X 5 = 20M)**

6. Explain the three-way handshake with suitable diagram.

(CO1) [Comprehension]

7. Explain the purpose and process of DNS in the context of domain name resolution. Discuss the role of DNS in the Internet's directory service.

(CO1) [Comprehension]

8. Explain the address format and class address of IPv4.

(CO2) [Comprehension]

9. Differentiate between Connection Oriented and Connectionless protocol.

(CO2) [Comprehension]

PART C

ANSWER THE FOLLOWING QUESTION **(1 X 20 = 20M)**

10. (a). Station A need to send a message consisting of 15 packets to station B using sliding window and Go-Back-N error control strategy. If every 5th packet that A transmits gets lost, but no ACKs from B ever gets lost then find the number of packets that A will transmit for sending the message to B? The window size is 3.

(b).How is checksum computed in UDP?Mention the steps. suppose that we have the bit stream, calculate the checksum for the following stream 0110011001100110 0110011001100110 0000111100001111.

(CO2,CO1) [Application]