ROLL NO.	

PRESIDENCY UNIVERSITY, BENGALURU
SCHOOL OF ENGINEERING

Max Marks: 80 | Max Time: 120 Mins | Weightage: 40 %

ENDTERM FINAL EXAMINATION

I Semester AY 2017-18 | Course: **CSE 211 COMPUTER NETWORKS** | 19 DECEM 2017

Instructions:

i. Write legibly

Part A

[5 Q x 4M= 20 Marks]

1. Differentiate direct and indirect delivery of packets

2. Which are the information you will get from this IP Address 192.168.2.1/26

3. Give the complete classification of Medium access /multiple access

4. Explain how amplifier is different from a repeater

5. Give UDP header format and explain each filed

Part B

[5Q x 8 M= 40Marks]

6. Differentiate Net-Hop and network specific method of routing with example

7. Explain polling and token passing procedure with necessary diagrams

8. Explain the distance vector algorithm for the given graph (refer fig1), draw the initial and updated routing table of node A and C

9. Explain the significance of QOS in networking, which are the different parameters of QOS?

10. Illustrate the significance of DNS in internet with necessary diagrams

Part C

[2 Q x 10 M= 20Marks]

11. Give IPV4 hear format and explain each field with proper size

12. List down various traffic shaping policies, also explain the working of leaky bucket and its implementation

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Max Marks: 40 | Max Time: 60 Mins | Weightage: 20 %

TEST 2

I Semester AY 2017-18 | Course: **CSE 211 Computer Network** | 26 OCT 2017

Instructions:

i. Write legibly
ii. Use diagrams wherever necessary

Part A (5Q x 3 M= 15 Marks)

1. Discuss the significance of NIC in network communication

2. Explain how Go Back-N ARQ Protocol is better than Stop and Wait protocol.

3. How does a single-bit error differ from a burst error?

4. How does the bridged LAN overcome the limitations of standard Ethernet?

5. If an Ethernet destination address is 07:01:02:03:04:05, what is the type of the address (unicast, multicast, or broadcast)?

Part B (2 Q x 7 M= 14 Marks)

6. Draw the MAC/ETHERNET frame structure and explain the role of different fields.

7. How does sliding window protocol is implemented, illustrate its various key points, Also draw the timing chart for transmitting 7 frames with window size 3 where the system follows cumulative acknowledgement

Part C (1 Q x 11M= 11 Marks)

8. i). Given the dataword 1010011110 and the divisor 10111,

a. Show the generation of the codeword at the sender.
b. Show the checking of the codeword at the receiver (assume no error).

ii). Draw the timing chart for Stop and wait ARQ for transmitting 6 frames with the following situations

a. Loss of 2nd frame
b. Loss of acknowledgement of 3rd frame
c. Late arrival of 5th acknowledgement
d. Loss of last frame and loss of last acknowledgement

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Max Marks: 40 | Max Time: 60 Mins | Weightage: 20 %

TEST 1

I Semester 2017-2018 | Course: **CSE 211 Computer Network** | 18 SEPT 2017

Instructions:

i. Write legibly
ii. Use diagrams whereever necessary

Part A (5Q x 3 M= 15 Marks)

1. Match the following with one or more layers of OSI model

a). Establish and manage connections
b).Carrying frames between adjacent nodes
c). Mechanical, Electrical and functional interface
d).Route selection
e).Communicate directly with user's application
f).Transmission of bit streams

2.What are the factors that determine whether a communication system is a LAN or MAN?

3. Compare parallel and serial communication

4. When a party makes a local telephone call to another party, is this a point-to-point or multipoint connection? Explain your answer.

5. Assume six devices are arranged in a mesh topology. How many cables are needed? How many ports are needed for each device?

Part B (3 Q x 5M= 15 Marks)

6. What is mean by Line configuration and which are the techniques involved in it?

7. a). What is the difference between port address, logical address and physical address ?
b). Distinguish between signal element and data element

8. How does delay / Latency affect the performance of network? What are the propagation time and transmission time for a 2.5 kbyte message if the bandwidth of the network is 1Gbps , distance between the sender and receiver is 12,000km and that light travels at $2.5x10^8$ m/s

Part C (1 Q x 10M= 10 Marks)

9. a).What is mean by composite signal? Draw a time chart for periodic composite signal having three sine waves with 5v and 3Hz .
b). Is the frequency domain plot of a voice signal discrete or continuous? Justify your answer.
c). What is the significance of the twisting in twisted-pair cable?
d). A beam of light moves from one medium to another medium with less density. The critical angle is 60°. Do we have refraction or reflection for each of the following incident angles? Show the bending of the light ray in each case.
i). 40° ii). 60° iii). 80^0