



ROLL NO:

PRESIDENCY UNIVERSITY, BENGALURU
SCHOOL OF ENGINEERING

Weightage: 20 %

Max Marks: 40

Max Time: 1 hr.

Monday, 24th September, 2018

TEST – 1

Odd Semester 2018-19

Course: **CSE 211 Computer Networks**

V Sem. CSE

Instruction:

- (i) Read the question properly and answer accordingly.
- (ii) Question paper consists of 3 parts.
- (iii) Scientific and Non-programmable calculators are permitted.

Part A

(3 Q x 4 M = 12 Marks)

1. What does "Negotiation" means when discussing network protocols? Give an example.
2. Draw a simple sketch of Layered diagram and specify the important protocols running in each layer.
3. When a party makes a local telephone call to another party, is this a point-to-point or multipoint connection? Explain the answer.

Part B

(2 Q x 8 M = 16 Marks)

4. For each of following four networks, discuss the consequences if a connection fails:

- (a) Seven devices arranged in a mesh topology
- (b) Seven devices arranged in a Star topology
- (c) Seven devices arranged in a bus topology
- (d) Seven devices arranged in a ring topology.

5. Draw a side view of a single Fiber. What are the advantages of Fiber Optics over Copper as a transmission medium? Is there any downside of using Fiber Optics over Copper?

Part C

(1 Q x 12 M = 12 Marks)

6.

- (a). Compare and Contrast the OSI reference model with TCP/IP reference model. (6 M)
- (b). Brief about encoding schemes under polar category. (6 M)



**PRESIDENCY UNIVERSITY,
BENGALURU**

SCHOOL OF ENGINEERING

TEST 2

Odd Semester: 2018-19

Course Code: CSE 211

Course Name: Computer Networks

Branch & Sem: CSE & V Sem

Date: 27 November 2018

Time: 1 Hour

Max Marks: 40

Weightage: 20%

Instructions:

- (i) **Answer all the questions**
- (ii) **Assume the data if necessary**

Part A

Answer **all** the Questions. **Each** question carries **four** marks. (3x4=12)

1. What do you mean by stop and wait protocol? Explain in brief
2. Explain in brief about HDLC stations, configurations and operational modes
3. Explain 4 way handshake with respect to IEEE 802.11 standard

Part B

Answer **all** the Questions. **Each** question carries **eight** marks. (2x8=16)

4. Draw the frame format of IEEE 802.3 and 802.5 standards. Explain the functionalities of each field
5. Assume that the sender wants to send the message **110101**. The sender uses Cyclic Redundancy Check method for error detection using the polynomial **101**. Calculate the number of redundancy bits. Also explain steps involved

Part C

Answer the Question. Question carries **twelve** marks. (1x12=12)

6. Consider the hamming code for error detection and correction
 - A) How do you calculate number of redundancy bits?
 - B) Explain all the steps by considering the data word **1001101**
 - C) Consider there is error in 2nd bit from LSB. How do you identify that?



Roll No.

**PRESIDENCY UNIVERSITY
BENGALURU**

SCHOOL OF ENGINEERING

END TERM FINAL EXAMINATION

Odd Semester: 2018-19

Course Code: CSE 211

Course Name: Computer Networks

Programme & Sem: CSE & V Sem

Date: 27 December 2018

Time: 2 Hours

Max Marks: 80

Weightage: 40%

Instructions:

(i) **Answer all the questions**

Part A

Answer **all** the Questions. **Each** question carries **five** marks.

(4Qx5M=20)

1. How the failure of one node brings the whole network down in Ring topology. Illustrate with diagram and compare with Star topology.
2. What is meant by interface between layers? How the interaction between layers happen in OSI reference model?
3. Find the Class of the following class full IP addresses. Give reason for your answer with dotted decimal equivalent value.

i) 01110111 11110011 10000000 11011101
ii) 11101111 11000000 11110010 00011101
iii) 11011111 10110000 00011111 01011110
4. What is Congestion? Why Congestion occurs? Differentiate flow control mechanism with congestion control.

Part B

Answer **all** the Questions. **Each** question carries **ten** marks.

(4Qx10M=40)

5. a) Draw a packet format of TCP and explain the fields (6M)
b) Describe about the well-known ports used by UDP (4M)
6. Write down the Layers of the following Protocols:

i) TCP and UDP (ii) IP (iii) HDLC and Ethernet (iv) FTP and HTTP. (10M)

Also explain in detail about the Protocols running in the Application Layer.

7. a) What is the effects of Congestion occurs? Explain. (5M)
- b) Explain about any one Congestion Control Technique in detail with suitable diagram. (5M)
8. Compare and Contrast the OSI Reference model and TCP/IP model with suitable Diagrams. (10M)

Part C

Answer **both** the Questions. **Each** question carries **ten** marks. (2Qx10M=20)

9. a) What is the Subnetwork address if the destination address is 200.45.34.56 and the subnet mask is 255.255.240.0? (3M)
- b) A company is granted the site address 181.56.0.0. The company needs 1000 subnets. Design the subnets with suitable diagram. (7M)
10. a) How can be the Packet switching is "Store-and-Forward" approach? Explain. Also compare the three switching techniques in the form of table (7M)
- b) What is DNS? Explain the format of Resource Record in DNS. (3M)
