Code No: **RT41042**   **R13**   Set No. 1

IV B.Tech I Semester Regular/Supplementary Examinations, Oct/Nov - 2018
COMPUTER NETWORKS
(Electronics and Communication Engineering)

Time: 3 hours   Max. Marks: 70

Question paper consists of Part-A and Part-B
Answer ALL sub questions from Part-A
Answer any THREE questions from Part-B
*****

PART–A *(22 Marks)*

1. a) Write about Arpanet.   [2]
   b) Write the advantages of optical fiber over twisted and coaxial cables.   [5]
   c) Define bridge? Write about types of bridges.   [4]
   d) Write about various classes of IP addresses.   [4]
   e) What are the advantages of transport layer?   [5]
   f) Define Digital Signature.   [2]

PART–B *(3x16 = 48 Marks)*

2. a) What do you mean by computer network? Classify computer networks and Explain them in brief.   [8]
   b) Differentiate between OSI and TCP /IP reference models.   [8]

3. a) Why twisted pair cables are preferable over coaxial cables? Explain.   [8]
   b) Compare narrow band and broad band ISDN.   [8]

4. a) What are the various types of error detection methods?   [8]
   b) Compare simple and transparent bridges.   [8]

5. a) Give the general principles of various congestion control algorithms.   [8]
   b) With an example, explain the distance vector routing.   [8]

6. a) Write the structure of TCP pseudo header and explain how it is used in checksum calculation.   [8]
   b) How does UDP differ from TCP? List the applications of UDP.   [8]

7. a) Define FTP. Discuss in brief about FTP.   [8]
   b) Explain in brief about DNS.   [8]

Code No: **RT41042**   **R13**   Set No. 2

IV B.Tech I Semester Regular/Supplementary Examinations, Oct/Nov - 2018
COMPUTER NETWORKS
(Electronics and Communication Engineering)

Time: 3 hours   Max. Marks: 70

Question paper consists of Part-A and Part-B
Answer ALL sub questions from Part-A
Answer any THREE questions from Part-B
*****

PART–A *(22 Marks)*

1. a) What are the advantages of having layered architecture?   [5]
    b) Discuss about unguided transmission media.   [5]
    c) Write about Hamming code.   [4]
    d) Define spanning tree.   [2]
    e) Write about any two service primitives of Transport layer.   [4]
    f) What is the purpose of DNS?   [2]

PART–B *(3x16 = 48 Marks)*

2. a) Distinguish between TCP/IP and OSI Model.   [8]
    b) Explain detail about Network Hardware. How network hardware support the communication of two systems?   [8]

3. a) Differentiate between guided and unguided transmission media.   [8]
    b) What are the advantages of Narrow brand and broad band ISDN?   [8]

4. a) Explain detail about the carrier sense multiple access protocols.   [8]
    b) Describe the working principle of Carrier sense multiple access with collision Detection (CSMA/CD).   [8]

5. a) Give the details about Coke packets & Load shedding.   [8]
    b) Distinguish between Leaky Bucket algorithm and Token Bucket algorithm.   [8]

6. a) Write a detailed note on transport services.   [8]
    b) Explain in detail three way handshaking for connection establishment in TCP.   [8]

7. a) What is electronic E-mail? Describe in brief about the two architectures of E-Mail.   [8]
    b) Distinguish between symmetric and asymmetric encryption.   [8]

Code No: **RT41042**   **R13**   **Set No. 3**

IV B.Tech I Semester Regular/Supplementary Examinations, Oct/Nov - 2018
COMPUTER NETWORKS
(Electronics and Communication Engineering)

Time: 3 hours   Max. Marks: 70

Question paper consists of Part-A and Part-B
Answer ALL sub questions from Part-A
Answer any THREE questions from Part-B
*****

PART–A *(22 Marks)*

1. a) What are the advantages of MAN?   [5]
    b) Write about the twisted coaxial cables.   [5]
    c) Draw the Ethernet frame format.   [4]
    d) Define Tunneling.   [2]
    e) Write about UDP.   [2]
    f) What is the function of SMTP?   [4]

PART–B *(3x16 = 48 Marks)*

2. a) What are the distinct characteristics of local area networks, explain briefly?   [8]
    b) Discuss in brif about TCP/IP protocol Suite.   [8]

3. a) Explain details about ISDN. Describe the types of ISDN.   [8]
    b) Give brief description about the co-axial cables and also mention their
        disadvantages.   [8]

4. a) What is pure ALOHA and slotted ALOHA? Mention the advantages of slotted
        ALOHA.   [8]
    b) What are the draw backs of stop and wait protocol? How can they overcome by   [8]
        sliding window protocol?

5. a) What are the static routing algorithms? Explain the concept of flooding.   [8]
    b) Explain the prevention polices of congestion.   [8]

6. a) What are the functions of transport layer? State transport service primitives. [8]
    b) Explain the layer of ATM.   [8]

7. a) Explain in brief about the formats of HTTP request and Response messages?   [8]
    b) What is a name server? List and explain the features of various name servers.   [8]

Code No: **RT41042**   **R13**   Set No. 4

IV B.Tech I Semester Regular/Supplementary Examinations, Oct/Nov - 2018
COMPUTER NETWORKS
(Electronics and Communication Engineering)

Time: 3 hours   Max. Marks: 70

Question paper consists of Part-A and Part-B
Answer ALL sub questions from Part-A
Answer any THREE questions from Part-B
*****

PART–A *(22 Marks)*

1. a) Define Computer network.   [2]
    b) Discuss the construction of coaxial cable.   [6]
    c) What are the advantages of slotted Aloha?   [5]
    d) What is the difference between broad casting and multicasting?   [5]
    e) What are the transport layer protocols?   [2]
    f) What is a firewall?   [2]

PART–B *(3x16 = 48 Marks)*

2. a) Why are a LAN required and what objectives are achieved by having a LAN?   [8]
    b) Define Topology. Discuss in brief about computer network topologies.   [8]

3. a) Describe the Transmission Media. What are the types of Transmission Media? [8]
    b) Discuss various channels supported by ISDN bit pipe.   [8]

4. a) Discuss about CSMA/CD protocol and its basic functions.   [8]
    b) What is the significance of bridge? What are the different types of bridges?
        Explain.   [8]

5. a) With neat sketch, Explain virtual circuit switching.   [8]
    b) What is multicasting? Briefly discuss multicasting techniques and protocols. [8]

6. a) Discuss various flow control mechanisms in transport layer.   [8]
    b) Define UDP and discuss the different fields of the format of a used datagram. [8]

7. a) What is World Wide Web? Explain details about HTTP.   [8]
    b) Describe importance of DNS in application layer.   [8]

1 of 1