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

IV B.Tech I Semester Regular Examinations, November - 2016

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
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PART–A ***(22 Marks)***

1. a) Explain about WAN. [4]
   b) What are the different types of ISDN interfaces? [4]
   c) With an example explain the process of Error detection using LRC. [4]
   d) What is the difference between Broadcasting and Multicasting? [4]
   e) What are TCP and UDP protocols? [3]
   f) Explain about HTTP. [3]

PART–B ***(3x16 = 48 Marks)***

2. a) Explain the different topologies of the network. [8]
   b) Explain the TCP/IP model? [8]

3. a) Explain the significance of Switching? What are different switching techniques used in computer networks? Discuss. [8]
   b) Discuss about ATM in detail? [8]

4. a) Explain about ALOHA and CDMA. [8]
   b) Explain various classes of IEEE 802.X Standard Ethernet. [8]

5. a) With an example explain the Dynamic routing algorithms used in computer networks. [8]
   b) What are the reasons for congestion? What are the problems with congestion? [8]

6. a) Explain the Services of Transport layer. [8]
   b) Explain leaky bucket and token bucket algorithms. [8]

7. a) Explain how Network Security can be achieved. [8]
   b) Write about electronic mail in detail. [8]

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

IV B.Tech I Semester Regular Examinations, November - 2016

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) Explain about LAN. [4]
   b) What are the differences between Narrowband ISDN and Broadband ISDN? [4]
   c) With an example explain the process of Error detection usingVRC. [4]
   d) What are the characteristics of datagram networks? [4]
   e) What are the responsibilities of Transport layer? [3]
   f) What is meant by data encryption standard? [3]

PART–B *(3x16 = 48 Marks)*

2. a) Explain various categories of networks. [8]
   b) Explain the ISO/OSI reference model. [8]

3. a) With neat sketch explain Twisted pair cables, connectors of twisted pair cables with neat graph explain the performance of Twisted pair cables. [8]
   b) What is the significance of ISDN? Explain the basic concept of ISDN. Give the protocol architecture of ISDN? [8]

4. a) Explain the working of CSMA Protocol. [8]
   b) Explain the advantages of wireless LANS. [8]

5. a) Explain the layered architecture of ATM Network. [8]
   b) With an example explain the shortest path routing algorithms used in computer networks. [8]

6. a) Discuss about TCP and UDP Protocols [8]
   b) Explain ATM AAL Layer Protocol. [8]

7. a) Write about Electronic mail in detail. [8]
   b) Explain the working of DNS. [8]

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

IV B.Tech I Semester Regular Examinations, November - 2016

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
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PART–A ***(22 Marks)***

1. a) Explain about MAN. [4]
   b) What is the significance of Switching? What are the different types of Switching techniques? [4]
   c) With neat sketch explain the basic concept involved in Elementary Protocol: stop and wait [4]
   d) Explain the differences between 10 base 2 and 10 base 5 Ethernet. [4]
   e) What are the sub layers of AAL layer of ATM. [3]
   f) What is the significance of DNS? [3]

PART–B ***(3x16 = 48 Marks)***

2. a) Explain the following networks
      i) ARPANET ii) Internet [8]
   b) What is the significance of layered architecture? Explain the OSI layered architecture with neat sketch. [8]

3. a) With neat graphs explain various line coding techniques (Digital to digital conversion). [8]
   b) Explain the concept of ATM and its interfaces. How addressing is achieved in ATM? [8]

4. a) Explain the following error detection techniques
      i) LRC ii) CRC [8]
   b) With an example explain the sliding window Flow control mechanism. [8]

5. a) With an example explain the distance vector routing algorithms used in computer networks [8]
   b) What are the general principles of congestion control? Explain. [8]

6. a) Explain in detail about Connection management. [8]
   b) Discuss about the header format of UDP. [8]

7. Write short notes on the following
      i) Multi Media ii) SNMP [16]

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

IV B.Tech I Semester Regular Examinations, November - 2016

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
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PART–A ***(22 Marks)***

1. a) What is the significance of topologies? What are the different types of topologies? [4]
   b) What are the different types of ATM interfaces. [4]
   c) Explain the differences between Pure and Slotted ALOHA Systems. [4]
   d) Define Congestion. What are the general Principles of Congestion? [4]
   e) What is Connection management? [3]
   f) Explain the WWW. [3]

PART–B ***(3x16 = 48 Marks)***

2. a) Explain the differences between OSI model and TCP/IP model? [8]
   b) Explain the following networks
      i) ARPANET ii) NSFNET [8]

3. a) With neat sketch explain Coaxial cable, Standards of coaxial cable and connectors of coaxial cables. [8]
   b) Explain the significance of Switching? What are different switching techniques used in computer networks? Discuss. [8]

4. a) Explain the following error detection techniques
      i) Cheksum ii) CRC [8]
   b) What is the significance of Bridges? Explain the different types of Bridges. [8]

5. a) With an example explain the Flooding, Hierarchical routing algorithms used in computer networks [8]
   b) Explain the Network layer in the internet. [8]

6. a) Explain ATM AAL Layer Protocol [8]
   b) Explain leaky bucket and token bucket algorithms. [8]

7. Write short notes on the following
   i) DNS ii) SNMP [16]

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