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
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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

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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
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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 sliding window protocol? [8]

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]