**R13**

SET - 1

### III B.Tech II Semester Regular Examinations, April - 2016
### COMPUTER NETWORKS
(Common to CSE and IT)

Time: 3 hours                                                                                     Max. Marks: 70

Note: 1. Question Paper consists of two parts (**Part-A** and **Part-B**)
2. Answering the question in **Part-A** is compulsory
3. Answer any **THREE** Questions from **Part-B**
*****

## PART –A

| | | | |
|---|---|---|---|
| 1 | a) | Explain in detail about the MAN. | [4M] |
| | b) | Discuss briefly about the multilevel multiplexing. | [3M] |
| | c) | What is Piggybacking? Explain the advantage of it. | [3M] |
| | d) | Explain in detail about the Broadcasting. | [4M] |
| | e) | Discuss in detail about the Manchester Encoding. | [4M] |
| | f) | Explain in detail about the HTTP Response Message format. | [4M] |

## PART –B

| | | | |
|---|---|---|---|
| 2 | a) | Explain in detail about the Novell Network. | [8M] |
| | b) | Discuss how Internet has revolutionized many aspects of our daily lives | [8M] |
| 3 | a) | Explain in detail about the statistical time division multiplexing | [8M] |
| | b) | Compare and contrast a circuit-switched network and a packet-switched network | [8M] |
| 4 | a) | What are the services provided to the Network Layer by Data Link Layer? Explain. | [6M] |
| | b) | Given 1101011011 data frame and generator polynomial $G(x) = x^4 + x + 1$. Derive the transmitted frame. | [5M] |
| | c) | Explain in detail about the Simplex protocol for Noisy channel. | [5M] |
| 5 | a) | Describe in detail about the Frequency Division Multiple Access. | [8M] |
| | b) | Explain briefly about the shortest path routing algorithm. | [8M] |
| 6 | a) | Explain in detail about the Physical layer in the Fast Ethernet. | [8M] |
| | b) | Discuss briefly about the MAC layers in the 802.11 standard. | [8M] |
| 7 | a) | Explain in detail about the Client and Server in World Wide Web. | [8M] |
| | b) | Describe briefly about the HTTP Operational Model. | [8M] |

**III B.Tech II Semester Regular Examinations, April - 2016**
**COMPUTER NETWORKS**
(Common to CSE and IT)

Time: 3 hours                                                                                          Max. Marks: 70

Note: 1. Question Paper consists of two parts (**Part-A** and **Part-B**)
2. Answering the question in **Part-A** is compulsory
3. Answer any **THREE** Questions from **Part-B**
\*\*\*\*\*

## PART –A

| | | | |
|---|---|---|---|
| 1 | a) | Write a short note on ARPANET. | [4M] |
| | b) | Compare and contrast a circuit-switched network and a packet-switched network. | [4M] |
| | c) | Describe the significance of error detection and error correction mechanisms in data link layer. | [3M] |
| | d) | Explain in detail about the Time division Multiple Access. | [4M] |
| | e) | Write a short note on Medium Access Control. | [3M] |
| | f) | Explain the need of Uniform Resource Locator in WWW. | [4M] |

## PART –B

| | | | |
|---|---|---|---|
| 2 | a) | Explain different Layers and their functionalities in TCP/IP Model. | [8M] |
| | b) | Discuss in detail about the LAN and WAN. | [8M] |
| 3 | a) | Explain briefly about the applications of FDM | [4M] |
| | b) | Explain in detail about the synchronous time division multiplexing. | [6M] |
| | c) | Explain in detail about the Efficiency and Delay in Datagram Networks. | [6M] |
| 4 | a) | Explain in detail about the sliding window protocol using Selective Repeat. | [8M] |
| | b) | Give a brief note on the Multilink Point to point protocol. | [8M] |
| 5 | a) | Explain how slotted aloha improves the performance of pure aloha. | [6M] |
| | b) | Discuss briefly about the token passing. | [4M] |
| | c) | What is Count to infinity problem? Explain with suitable example. | [6M] |
| 6 | a) | Compare HDLC Frame with the LLC and MAC frame formats. | [8M] |
| | b) | Explain in detail about the addressing mechanism in 802.11. | [8M] |
| 7 | a) | Explain briefly about the Architecture of WWW. | [8M] |
| | b) | What are the different request types available in HTTP? Explain. | [8M] |

www.mvrcoe.ac.in

|"|'"||"||'"||||

**III B.Tech II Semester Regular Examinations, April - 2016**
**COMPUTER NETWORKS**
(Common to CSE and IT)

Time: 3 hours                                                                                           Max. Marks: 70

Note: 1. Question Paper consists of two parts (**Part-A** and **Part-B**)
2. Answering the question in **Part-A** is compulsory
3. Answer any **THREE** Questions from **Part-B**
\*\*\*\*\*

## PART –A

| | | | |
|---|---|---|---|
| 1 | a) | Explain briefly about the Novell Networks. | [4M] |
| | b) | What is the role of the address field in a packet traveling through a datagram network? Explain. | [4M] |
| | c) | What is the need of Framing? Explain. | [3M] |
| | d) | Compare and contrast the differences between broadcast routing and multicast routing. | [3M] |
| | e) | Explain in detail about the Logical Link Control. | [4M] |
| | f) | Discuss the HTTP Generic Message format. | [4M] |

## PART -B

| | | | |
|---|---|---|---|
| 2 | a) | Compare OSI Reference Model with the TCP/IP Model. | [8M] |
| | b) | Differentiate LAN, MAN and WAN network topologies. | [8M] |
| 3 | a) | What is Frequency Division Multiplexing? Explain Multiplexing process in Frequency Division Multiplexing with a suitable example. | [8M] |
| | b) | What are the two phases required in the Setup phase in Virtual Circuit? Explain. | [8M] |
| 4 | a) | Explain briefly about one-bit sliding window protocol. | [8M] |
| | b) | Explain in detail about the point-to-point protocol frame format. | [8M] |
| 5 | | With a suitable example explain Distance Vector Routing algorithm. What is the serious drawback of Distance Vector Routing algorithm? Explain. | [16M] |
| 6 | a) | What are the common Standard Ethernet implementations? | [8M] |
| | b) | Explain the fields in the 802.11 Frame Structure. | [8M] |
| 7 | a) | What is the use of Uniform Resource Locater for the Client? Explain. | [8M] |
| | b) | Give a brief note on Wireless application protocol. | [8M] |

www.mvrcoe.ac.in

**III B.Tech II Semester Regular Examinations, April - 2016**
**COMPUTER NETWORKS**
(Common to CSE and IT)

Time: 3 hours             Max. Marks: 70

Note: 1. Question Paper consists of two parts (**Part-A** and **Part-B**)
2. Answering the question in **Part-A** is compulsory
3. Answer any **THREE** Questions from **Part-B**
\*\*\*\*\*

## PART –A

1 a) Explain in detail about the LAN. [4M]

   b) Compare synchronous time division multiplexing with statistical time division multiplexing [3M]

   c) Compare and contrast flow control and error control. [3M]

   d) Discuss the drawbacks of flooding and distance vector routing algorithms. [4M]

   e) Explain maximum and minimum frame lengths in Ethernet. [4M]

   f) Discuss in detail about the HTTP Request Message format. [4M]

## PART -B

2 a) What are the different Layers in the OSI Reference Model? Explain the Functionalities of each Layer. [12M]

   b) Give a brief note on MAN. [4M]

3 a) What is multiplexing? Explain the basic format of multiplexed system. [6M]

   b) Explain in detail about the Wavelength Division Multiplexing. [6M]

   c) Discuss briefly about the multiple slot allocation. [4M]

4 a) What is the problem in Go-Back-N protocol? How it can be solved. [8M]

   b) Draw and explain HDLC frame format. [8M]

5 a) Write a short note on Fast Ethernet. [8M]

   b) Describe in detail about the Hierarchical routing. [8M]

6 a) Explain in detail about the 802.3 MAC frame format and its fields. [8M]

   b) What are the common Fast Ethernet implementations? [8M]

7 a) Give a brief note on the HTTP Transaction. [8M]

   b) What are the different Status Codes available in HTTP? Explain. [8M]