

Code No: RT32053

**R13****SET - 1**

**III B. Tech II Semester Supplementary Examinations, November-2018**  
**COMPUTER NETWORKS**  
(Common to Computer Science Engineering and Information Technology)

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**

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**PART -A**

- |   |    |   |      |
|---|----|---|------|
| 1 | a) | Match the following to one or more layers of the TCP/IP protocol suite: | [4M] |
|   |    | i) Creating a user datagram   |      |
|   |    | ii) Responsibility for handling frames between adjacent nodes           |      |
|   |    | iii) Transforming bits to electromagnetic signals                       |      |
|   | b) | Distinguish between synchronous and statistical TDM.                    | [4M] |
|   | c) | What is the meaning of P/F field in HDLC control field?                 | [3M] |
|   | d) | What is ALOHA? Compare different ALOHA protocols.                       | [4M] |
|   | e) | Which Ethernet standard supports full duplex transmissions and how?     | [3M] |
|   | f) | What is a URI? What are its components? IS URL same as URI.             | [4M] |

**PART -B**

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|---|----|---|-------|
| 2 | a) | What is a network? Explain the different parameters for measuring the performance of a network?                       | [6M]  |
|   | b) | Explain OSI reference architecture in detail.   | [10M] |
| 3 |    | What is Multiplexing? List and explain three multiplexing techniques in detail.                                       | [16M] |
| 4 | a) | Explain Sliding window protocols in detail.   | [10M] |
|   | b) | Calculate the polynomial checksum for the following frame and generator<br>Frame: 1101011011 and Generator: $x^4+x+1$ | [6M]  |
| 5 | a) | Explain different controlled access protocols in detail.  | [6M]  |
|   | b) | Compare Virtual circuit and Datagram subnets.   | [4M]  |
|   | c) | Explain Flooding algorithm.   | [6M]  |
| 6 | a) | Explain IEEE 802.3 protocol and its frame format.   | [8M]  |
|   | b) | Explain the commonly used media in Ethernet –based LAN in detail.   | [8M]  |
| 7 | a) | Explain web client (browser) architecture.  | [6M]  |
|   | b) | What is HTTP? Explain Nonpersistent and Persistent connections of HTTP.   | [10M] |

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