**Paper / Subject Code: 31923 / Computer Network**

Duration: 3hrs                                                                    [Max Marks: 80]

N.B. :  (1) Question No 1 is Compulsory.
        (2) Attempt any three questions out of the remaining five.
        (3) All questions carry equal marks.
        (4) Assume suitable data, if required and state it clearly.

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| **1** | **Attempt any FOUR** | **[20]** |
| A | Explain with examples the classification of IPv4 addresses. | 5 |
| B | Create 7-bit hamming code for the message bit 1110 with even parity. | 5 |
| C | List the advantages of fiber optics as a communication Medium. | 5 |
| D | What are sockets and its different types? | 5 |
| E | What is the use of DNS in networking? | 5 |
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| **2** | **Attempt the following** | |
| A | For the class C network 193.160.10.0 having subnet mask 255.255.255.192 finds the number of subnet created and Number of host per subnet. | 10 |
| B | What is network traffic congestion? How congestion is controlled? | 10 |
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| **3** | **Attempt the following** | |
| A | Explain different framing methods? What is the advantage of variable length frame over fixed layer frame? | 10 |
| B | How collision is controlled at MAC layer using CSMA/CD? | 10 |
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| **4** | **Attempt the following** | |
| A | What is use of ARP protocol? And also discuss header structure for ARP packet. | 10 |
| B | Which algorithms are useful for dynamic routing? | 10 |
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| **5** | **Attempt the following** | |
| A | Explain the process of connection management at TCP layer. | 10 |
| B | With the help TCP segment header structure, discuss importance of sequencing. | 10 |
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| **6** | **Attempt the following** | |
| A | Compare FTP and Telnet. | 10 |
| B | What are the benefits of Selective repeat ARQ protocol over Go-back N ARQ protocol? | 10 |

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