

# Question Paper Code : 6581

BCA (Third Years) (Semester-V) Examination, 2021

## DATA COMMUNICATION AND COMPUTER NETWORK

[ Paper : BCA-501 ]

Time : Three Hours]

[Maximum Marks : 70

**Note :** Attempt any five questions. Each question carries 14 marks.

1. Explain various components of Computer Networks. Also explain various application of computer network. [14]
2. Explain about the different types to transmission Medias in computer network. [14]
3. Explain the following in detail :
  - (a) Slotted Aloha [7]
  - (b) CSMA. [7]

4. What are the various types of error detecting and correcting techniques ? Explain with suitable example. A bit stream 1101011011 is transmitted using the standard CRC method. The generator polynomial is  $X^4+X+1$ . What is the actual bit string transmitted ? [14]
5. Explain about Sliding Window Protocols with suitable examples and diagrams. [14]
6. Explain about The IP Version 4 Protocol. What is classful addressing ? Also calculate the total number of network ID, total number of host ID per network for class A, B and C. [14]
7. Explain Distance vector routing with suitable example. [14]
8. What are the responsibilities of transport layer ? How it is similar to data link layer ? What are various design issues of Transport Layer ? [14]

9. Explain the following in detail :
- (a) TCP [7]
- (b) UDP [7]
10. Explain **any two** of the following in detail : [7×2=14]
- (a) Virtual terminal
- (b) Remote procedure call
- (c) FTP
- (d) DNS

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