

**S.D.E.**

**B.C.A. (2004 COURSE SEM- IV : WINTER - 2017  
SUBJECT : DATA COMMUNICATION & NETWORK**

Day : **Thursday**  
Date : **21/12/2017**

**W-2017-4166**

Time : **02.00 PM TO 05.00 PM**  
Max. Marks: 80

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**N.B.**

- 1) Attempt any **FIVE** questions from Section – I. Each question carries 10 marks.
  - 2) Attempt any **TWO** questions from Section – II. Each questions carries 15 marks.
  - 3) Answer to both the **SECTION** should be written in **SEPARATE** answer books.
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**SECTION - I**

- Q.1** What are the modes of transmission? Explain simplex, half duplex and full duplex method with suitable example.
- Q.2** What is OSI reference model? Explain each layer in brief.
- Q.3** Describe in detail IEEE 802.2 standard.
- Q.4** Differentiate between:  
a) Star topology and ring topology  
b) Connection oriented and connectionless network
- Q.5** Explain Time Division Multiple Access (TDMA).
- Q.6** Explain X.25 protocol in detail.
- Q.7** Write short notes on any **TWO**:  
a) LAN  
b) WAN  
c) Intranet

**SECTION – II**

- Q.8** ABC manufacturing company wants to setup network for 30 computer machines. Which type of network topologies will you prefer? Why? Draw a network diagram for the same.
- Q.9** a) Explain packet routing in brief.  
b) Explain the route discovery protocol with example.
- Q.10** What is IP address? Illustrate in detail about classes of IP address with example.

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