

**B.C.A. SEM-IV (2014 COURSE) CBCS : SUMMER - 2018**

**SUBJECT : COMPUTER NETWORKS - I**

Day : **Friday**  
Date : **27/04/2018**

**S-2018-1706**

Time : **10.00 AM TO 01.00 PM**  
Max. Marks : 100

**N. B. :**

- 1) Attempt **ANY FOUR** questions from Section – I and attempt **ANY TWO** questions from Section – II.
- 2) Figures to the right indicate **FULL** marks.
- 3) Answers to both the sections should be written in **SEPARATE** answer book.

**SECTION - I**

- Q. 1** Explain different switching techniques in detail. **(15)**
- Q. 2** Explain different modes of communication in detail. **(15)**
- Q. 3** Differentiate between the following: **(15)**
- a) Packet Switching v/s Circuit Switching
  - b) Switches v/s Bridge
- Q. 4** Explain Bluetooth architecture in detail with its applications. **(15)**
- Q. 5** a) Explain IEEE 802.4 (Token Bus) standard in detail. **(07)**  
b) Explain IEEE 802.5 (Token Ring) standard in detail. **(08)**
- Q. 6** What are different types of transmission media? Explain twisted pair cable and coaxial cable in detail. **(15)**
- Q. 7** Write short notes on **ANY THREE** of the following: **(15)**
- a) Network Interface Card (NIC)
  - b) Internet Service Provider (ISP)
  - c) E-mail
  - d) Satellite Communication

**SECTION - II**

- Q. 8** Explain TCP/IP model in detail with appropriate diagram. **(20)**
- Q. 9** Explain Ethernet types, Ethernet cables and Ethernet topologies in detail. **(20)**
- Q.10** Design a network layout of a University for different departments. Suggest which topologies and network devices you will prefer for this network. Justify your answer. **(20)**

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