## [Total No. of Questions - 11] [Total No. of Printed Pages - 2] (2064)

#### 14951

# MBA 4th Semester Examination Data Communication & Networking (N.S.)

IT-04

Time: 3 Hours Max. Marks: 60

The candidates shall limit their answers precisely within the answerbook (40 pages) issued to them and no supplementary/continuation sheet will be issued.

#### **SECTION - A**

Attempt all questions. Each question carries 2 marks.

- 1. (a) What is data communication?
  - (b) Define bandwidth.
  - (c) What is digital data rate?
  - (d) Which type of network topology is required for a single university campus?
  - (e) What is NIC?
  - (f) Define port and Socket.
  - (g) The IP address 192.170.30.0 belongs to which IP class?
  - (h) Define VPN.
  - (i) What is transmission impairment?
  - (j) Define light waves. (10×2=20)

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### **SECTION - B**

Attempt any four questions. Each question carries 5 marks.

- 1. Define the various ways of data encodings on the transmission medium.
- 2. Explain briefly the CDMA.
- 3. Explain fine server and workstation. How the two are different?
- 4. How tunneling is followed when data transfer is done between a IPV4 machine and IPV6 machine?
- 5. Explain in brief the term "Broadcasting".
- 6. Discuss wireless TCP & UDP. (4×5=20)

#### **SECTION - C**

Attempt any two questions. Each question carries 10 marks.

- 1. How Hamming Codes is useful for single bit error detection and correction? Explain with an example.
- 2. Discuss the functions of each layer of OSI model.
- 3. Explain the applications of mobile communications.
- 4. How the data is transmitted through optical fiber? Also explain the different cladding layers of an optical fiber. (2×10=20)