

## MBA

**THEORY EXAMINATION (SEM-IV) 2016-17  
DATA COMMUNICATION AND NETWORKING***Time : 3 Hours**Max. Marks : 100**Note : Be precise in your answer. In case of numerical problem assume data wherever not provided.***[SECTION – A]****1 Attempt all parts of this question. Each carries equal marks. [2x10=20]**

- a) What is computer network?
- b) What is Signals? Explain different types of signals.
- c) What is attenuation?
- d) What is switching?
- e) What is SMTP?
- f) What is meant by cryptography?
- g) The period of a signal is 100 ms. what is its frequency in kilohertz?
- h) What do you mean by error control?
- i) What is network protocol?
- j) Define gigabit Ethernet.

**[SECTION – B]****2 Attempt any five questions from this section. [10x5=50]**

- a) What is meant by Data Communication and explain its characteristics?
- b) Explain different types of topologies.
- c) Different methods for Digital signal transmission.
- d) Write about different transmission modes.
- e) Write about FDM, WDM and TD.
- f) Write about Go-Back-N ARQ protocol.
- g) Write about ALOHA Protocols.
- h) Explain the layers of TCP/IP model.

**[SECTION – C]****Attempt any two questions. [15x2=30]**

3.
  - a) Differentiate between LAN, WAN and MAN.
  - b) What is Firewall? Explain.
4.
  - a) What is authentication? Define digital signature.
  - b) Explain IPV6 and IPV4.
5.
  - a) Describe Network Criteria.
  - b) Write short notes on network devices.