

**MSCCS-11**  
December - Examination 2016  
**MSCCS (Final) Examination**  
**Data Communication and Networks**  
**Paper - MSCCS-11**

**Time : 3 Hours ]**

**[ Max. Marks :- 100**

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**Note:** The question paper is divided into three sections A, B and C.  
Write answers as per given instructions.

**Section - A**

**10 × 2 = 20**

(Very Short Answer Questions)

**Note:** Answer **all** questions. As per the nature of the question delimit your answer in one word, one sentence or maximum upto 30 words. Each question carries 2 marks.

- 1) (i) Give one difference between Analog and Digital transmission.
- (ii) Give an example of Half Duplex mode of Communication.
- (iii) Define Wavelength.
- (iv) What is the need of Parity Bit?
- (v) What is port address?
- (vi) Name some routing protocols.
- (vii) What do you mean by frames?

- (viii) Name any four guided media.
- (ix) What is the use of PING command in ICMP?
- (x) Give an example of URL with its complete descriptions.

**Section - B****4 × 10 = 40**

(Short Answer Questions)

**Note:** Answer **any four** questions. Each answer should not exceed 200 words. Each question carries 10 marks.

- 2) What is Modem? How does it work? Explain.
- 3) What do you mean by Topology? Explain different types of topologies with example.
- 4) Explain ARP (Address Resolution Protocol) and Reverse Address Resolution Protocol.
- 5) What is Piggybacking? Explain its needs.
- 6) Explain the following modulation techniques:
  - (i) Amplitude Modulation
  - (ii) Frequency Modulation
- 7) What is slow start mechanism? Explain how it plays a role in congestion control.
- 8) Define TCP header format in detail.
- 9) Write short note on Domain Name System.

**Section - C****2 × 20 = 40**

(Long Answer Questions)

**Note:** Answer **any two** questions. You have to delimit your each answer maximum upto 500 words. Each question carries 20 marks.

- 10) Explain the working of Hubs, Bridges, Switches and Router.
- 11) With a flow diagram, explain the working of CSMA/CD.
- 12) Explain error detection and error correction with respect to block coding. Find the codeword, using CRC given data word "1001" and generator "1011".
- 13) Write short note on the following:
  - (i) ATM (Asynchronous Transfer Mode Protocol)
  - (ii) Session Layer V/S Transport Layer

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