

**2015**

**M.Sc.**



**1st Semester Examination**

**COMPUTER SCIENCE**

**PAPER—COS—103**

*Full Marks : 50*

*Time : 2 Hours*

*The figures in the margin indicate full marks.*

*Candidates are required to give their answers in their own words as far as practicable.*

*Illustrate the answers wherever necessary.*

**Answer any four questions.**

1. (a) Compare between circuit switching and packet switching.
- (b) Define the term protocol, topology and transmission media.
- (c) Briefly describe UDP header.
- (d) Write down the different types of topology with examples.

2+3+2+3

*(Turn Over)*

2. (a) What is multiplexing? Briefly describe the multiplexing technique.

(b) Compare between connection oriented and connection less devices.

(c) What is congestion in network? Describe one congestion control technique.

(1+3)+2+(1+3)

3. (a) Write short note on the following :

(i) HTTP;

(ii) FTP;

(iii) CSMA/CD.

(b) Write down the difference between physical address, logical address and port address with example.

(c) Write down the polynomial representation of CRC-32.

(3×2)+3+1

4. (a) Define the term bandwidth of a channel.

(b) Write down the structure of three frames of HDLC protocol.

(c) Describe three-way handshaker in TCP.

(d) Write down the name of all layers of OSI model.

2+3+4+1

5. (a) Write short notes on :

(i) TDMA;

(ii) FDMA;

(iii) CDMA.

(b) Differentiate between layer 2 switches and AM switches.

(c) What is the function of transmission layer.

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6. Write short note on any two :

5×2

(a) 3-Tier Client-Server Model;

(b) Modem Technology;

(c) IPV6;

(d) wireless communications.

**[Internal Assessment — 10 Marks]**

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