

**EI - 601****B.E. VI Semester**

Examination, June 2015

**Data Communication and Computer Networks***Time : Three Hours**Maximum Marks : 70*

- Note:** i) Answer five questions. In each question part A, B, C is compulsory and D part has internal choice.  
 ii) All parts of each questions are to be attempted at one place.  
 iii) All questions carry equal marks, out of which part A and B (Max.50 words) carry 2 marks, part C (Max.100 words) carry 3 marks, part D (Max.400 words) carry 7 marks.  
 iv) Except numericals, Derivation, Design and Drawing etc.

**Unit - I**

1. a) What is data communication?  
 b) Define channel capacity.  
 c) State parallel and serial transmission.  
 d) Explain TDM and FDM, multiplexing strategies.

OR

Explain simplex, half duplex and full duplex modes of transmission and their applications.

**Unit - II**

2. a) What is RS-232 standard?  
 b) What is X-21 standard?  
 c) What is RS-449 standard?

- d) Explain T-carrier and E-carrier  
 OR  
 Explain ISDN.

**Unit - III**

3. a) What is circuit switching?  
 b) What is packet switching?  
 c) Define concept of layering.  
 d) Explain OSI reference model.

OR

Explain TCP/IP protocol suite.

**Unit - IV**

4. a) What is HDLC?  
 b) What is SDLC?  
 c) Explain functions of Data link layer.  
 d) Explain sliding window protocol.

OR

Explain flow control.

**Unit - V**

5. a) What is LAN and MAN?  
 b) What is contention?  
 c) What is Token Passing?  
 d) Explain CSMA/CD.

OR

Explain ethernet and fast ethernet.

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