

Roll No

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

Examination, December 2014

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

Note : Attempt any five questions. All questions carry equal marks. Assume suitable data wherever necessary.

Unit - I

1. a) Explain simplex and half duplex modes of transmission and their application. 7
- b) Differentiate between FDM and WDM. 7

OR

2. a) Explain the basic components of data communication and their characteristic. 7
- b) Differentiate between synchronous and asynchronous modes of transmission. 7

Unit - II

3. a) Explain RS 449 standard. 7
- b) Explain RS 232 C standard. 7

OR

4. a) Explain ISDN and its applications. 7
- b) Explain MODEMS applications and their types. 7

Unit - III

5. a) Differentiate between circuit switching and message switching. 7
- b) Explain four functions of data link layer. 7

OR

6. a) Explain TCP/IP protocol suite. 7
- b) Explain four functions of internal layer. 7

Unit - IV

7. a) Differentiate between SDLC and HDLC. 7
- b) Explain sliding window protocol. 7

OR

8. Assume the CRC generator polynomial of $x^5 + x^4 + x^2 + 1$ is used of provide error checking, compute the bit stream that will be transmitted if a message 111000111000 is sent. 14

Unit - V

9. a) Explain medium access control techniques. 7
- b) Explain CSMA/CD and CSMA/CA. 7

OR

10. a) Differentiate between Gigabit ethernet and 10 Gigabit ethernet. 7
- b) Explain token passing and polling. 7
