

# **Indian Institute of Information Technology, Allahabad**

## **Department of Information Technology**

### **Computer Networks-ICNE 532C**

#### **Lab Test**

**Date: 17/11/2017**

**Time: 6.30 PM to 7.45 PM**

***Note: Attempt any two***

1. Consider the Cyclic Redundancy Check (CRC) algorithm suppose that 4-bit generator is 1001, that the data payload (D) is 10011011 and that  $r = 3$ . Implement the CRC using C/C++ and show the CRC bits(R) associated with the data payload.

2. Implement the following encoding scheme

Manchester Encoding,

Differential Manchester encoding,

NRZ-L, and NRZ-I

Use data : 101000110 (Assume that signal starts with low) You may use 0 represent to low to high and 1 represent to high to low.

3. Implement a chat application in which multiple clients communicate with the server using Socket Programming. The client and server can be on a single machine or on the network. In this, first, client A sends the message to server and then server will send this message to client B. There will be no direct communication between A and B.