

King Fahd University of Petroleum and Minerals
College of Computer Sciences and Engineering
Department of Computer Engineering

COE 342 – Data & Computer Communications (T042)

Homework # 04 (due date: Sunday 15/05/2005)

***** Show all your work. No credit will be given if work is not shown! *****

Problem # 1 (70 points): Using the **CRC-12** polynomial, generate the CRC code for the data bit sequence **0010011000010111** (leftmost bit is the most significant) by using:

1. **(20 points)** Modulo-2 arithmetic method
2. **(20 points)** Polynomial method
3. **(30 points)** Shift register method (show both the shift register circuit and the table)