

**Electrical Engineering Department**  
**EE 400 (072)**  
**Quiz 1**

**Name:**

**ID:**

**Q1** Let  $g(x) = x^3 + x + 1$ . Consider the information sequence 1001:

- a) Find the codeword corresponding to the preceding information sequence.
- b) Suppose that the codeword has a transmission error in the first bit. What does the receiver obtain when it does its error checking?