CSE 451 CT-2

Date: 01.02.2014 Time: 35 minutes

Total Marks: 20 Student Id.:aaaaa aaaa

1. Assume that the error detection or correction mechanism we are using is Hamming Code where m=3. The generator generates the redundant bits as follows: 15

$$r\_{i}=a\_{i+1}+ a\_{i}+ a\_{\left(i+m\right)\%k}$$

Where $A=a\_{k}a\_{k-1}…a\_{1}a\_{0}$ is the dataword to be sent.

Now find out the equations used by the checker to calculate the syndrome and the logical decision made by the correction logic analyzer of the decoder.

1. Why error correction is difficult than detection? 2
2. Find the polynomial to represent the binary word **10110011** 3