

CSC 216 Logic and Switching Theory  
Group Homework #3

- 5 pts. 1. Convert the following from Gray code to binary: 101111001101
- 5 pts. 2. Convert the following from Gray code to binary: 101010001101
- 5 pts. 3. Convert the following from binary to Gray code: 101101111010
- 5 pts. 4. Convert the following from binary to Gray code: 100101101010
- 5 pts. 5. Write the decimal equivalent of the following code:  $1001000100100011_{8421}$
- 5 pts. 6. Write the decimal equivalent of the following code:  $0101101010011101_{642(-3)}$
- 5 pts. 7. Write the decimal equivalent of the following code:  $0101011000010111_{2421}$
- 5 pts. 8. Write the decimal equivalent of the following 2 out of 5 code: 010101100001100<sub>01247</sub>
- 5 pts. 9. Write 5432 using the 8421 code
- 5 pts. 10. Write 5432 using the 642(-3) code
- 5 pts. 11. Write 5432 using the 2421 code
- 5 pts. 12. Write 5432 using the 2 out of 5 code (01247)
- 15pts. 13. Convert the following decimal numbers to BCD numbers and perform the addition. Convert the answer back to decimal.  
 $454 + 573$
- 15pts. 14. Convert the following decimal numbers to excess three numbers and perform the addition. Convert the answer back to decimal.  
 $454 + 573$
- 10 pts 15. Write the even parity bits for the following:
- a. 1 0 1 1 0
  - b. 0 1 1 1 1
  - c. 0 0 0 0 0
  - d. 1 1 1 0 0
  - e. 1 0 1 0 0