

CSE260

Assignment 01

Marks: 5 + 5 + 5 = 15

This assignment must be handwritten. Show ALL steps in ALL questions.

Question 1,4 and 5 are graded. So, you only need to submit those questions. Rest are ungraded.

1. Subtract 132 from 547 in 11 bits using 2's complement number system and justify whether there is an overflow or not.
2. Convert the following from Excess 4 to the original number:
 $(101101100111.01011001)_{\text{Excess-4}}$
3. Multiply the following in the given base: $(34)_9$ with $(87)_9$
NB: You must show the whole procedure.
4. Divide $(444)_7$ by $(25)_7$
NB: You must show the whole procedure.
5. You are a computer engineer and you want to buy two 8 GB DDR4 RAMs. Each RAM costs $(1C2)_{16}$ dollars. You also want to buy a graphics card RTX4070Ti which costs $(10010110000)_2$ dollars. However, you don't have that much money with you and you are afraid to ask your parents about it. Suddenly, one of your generous friends agreed to give you the money you need. He decided to give you $(4064)_8$ dollars. How much will you have left after buying those components? (Show the answer in decimal)