

CIS231

Lab1

Answer the following questions. Show your work, no work no credit even if the answer is correct

Type your answer and make the final answer distinguished

- 1- What is the 8-bit binary (two's-complement) representation of each of the following signed decimal integers?
  - a. -72
  - b. -98
- 2- What is the decimal representation of each of the following signed binary numbers?
  - a. 10000000
  - b. 11001100
- 3- The following 16-bit hexadecimal numbers represent signed integers. Convert each to decimal.
  - a. 4CD2
  - b. 8230
- 4- What is the 16-bit hexadecimal representation of each of the following signed decimal integers?
  - a. -21
  - b. -45
- 5- What is the sum of each pair of hexadecimal integers?
  - a. 6B4 + 3FE
  - b. A49 + 6BD
- 6- Create a truth table to show all possible inputs and outputs for the boolean function described by  $\neg(A \vee B)$
- 7- If a boolean function has four inputs, how many rows are required for its truth table?
- 8- Given the two-hexadecimal number num1 = B69, num2 = 7AD find in hexadecimal:
  - a. num1 AND num2
  - b. num1 OR num2
  - c. not num1