**Roll No: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ AI-B Fall 2024**

**Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ ProgrammingFundamentals**

**Section:\_\_\_\_\_\_\_\_\_\_\_\_\_ Quiz 2**

**A**

**Q1: Write output of the following cpp code:**  
  
int main() {

int a = 8;

int b = 4; Solution : 21 6

int c = 2;

int d = 6;

int result;

result = a + b \* c / d - a % b + d \* c;

b=d\*d/d+d%-d;

cout << result<<" "<<b;

return 0;

}

**Q2: Write output of the following cpp code:**

#include <iostream>

using namespace std;

int main() {

unsigned int a = 0; Solution : 4294967295

cout << a - 1 << endl;

return 0;

}

**Q3:**

Write a cpp program to perform the formula of average using only bitwise operations.

#include <iostream>

using namespace std;

int main() {

    int num1, num2;

    cout << "Enter first number: ";

    cin >> num1;

    cout << "Enter second number: ";

    cin >> num2;

    int sum = num1 ^ num2;

    int carry = (num1 & num2) << 1;

    int temp\_sum = sum ^ carry;

    int new\_carry = (sum & carry) << 1;

    sum = temp\_sum ^ new\_carry;

    carry = (temp\_sum & new\_carry) << 1;

    temp\_sum = sum ^ carry;

    carry = (sum & carry) << 1;

    sum = temp\_sum ^ carry;

    carry = (temp\_sum & carry) << 1;

    cout << "The sum is: " << sum << endl;

    cout << "Average is: " << (sum >> 1) << endl;

    return 0;

}