BRAC UNIVERSITY
Department of Computer Science and Engineering
Semester: Fall 2023
Section-9

Quiz-3
Duration: 35minutes

Full Marks: 15

CSE 340: Computer Architecture

Name: ID:

1. **[CO1] Convert** 110.101 x 10^-2 into 18-bit IEEE-754 Floating Point Representation, where the biased exponent is 6 bits.
   Note: You need to show all the steps. **[6 marks]**

2. **[CO3] Use** Optimized Multiplication approach to perform the multiplication of 2 (multiplicand) and 4 (multiplier). Show the contents of the product and multiplicand registers in each step.
   Consider this as a 4-bit hardware. **[6 marks]**

3. **[C01] Convert** the following C code to Floating Point MIPS Code: Consider C as an array that holds the floating point values with base address $s1 and A as an integer array with base address $s2, J is in $f2. **[3 marks]**

   C[3]= A[5] - 9 + (float)J