School of Computer Science Engineering and Technology

Course- BTech	Type- Core
Course Code: CSET203	Course Name- Microprocessor & Computer Architecture
Year- 2022	Semester- 3rd
Date-	Batch-

Lab Assignment -4 (Set-2)

CO-Mapping:

Exp No.	Name	CO1	CO2	CO3
4	MIPS Programming	✓	--	✓

Objective: You will learn how to take inputs of different storage types from user, and how to do the simple arithmetic and logical operation on them. This will help you to learn assembly programming in depth.

Q1. Using MARS simulator, write a basic assembly language code for taking two integers as input, multiply them, and print the result on console.

Example: Enter first number: 8
Enter second number: 9
Result is: 72

Note: Please note that the label, e.g., "Enter first number:" and "Enter second number:" in input, "Results is:" in output should be displayed on the console.

Q2. Write an assembly language code that will take two number **a** and **b** (**a>b**) from the user, and display the quotient and reminder after dividing **a** by **b**.
Example: Input **a** is: 8
Input **b** is: 3

Quotient is: 2
Reminder is: 2

Q3. Write an assembly language code for getting the string as input and print the same on the console.

Example: Enter the string: **This is MIPS lab**
String is: This is MIPS lab

Q4. Write an assembly language code that takes your name and birth year as input. Your program first computes the age of a person and then display the output as follows.

Example: Let say the name of the person is **YYY** and Year of birth is **1999,** then the output should be like this: **YYY**
He is 23-year-old!!

Q5. Write the assembly language code which will check a number whether it is even or odd (input should be given by user).

Example: Enter the number to be checked for even or odd: 23
Output should be: **23 is odd.**

Submission Instructions:

1. Submit your .asm files in your respective batches in LMS. Save all the files as per the format **RollNo_Lab#_QuestionNo.asm** (Example: E21CSE0356_Lab3_Q2.asm).
2. Write your Name and Roll No. as comment before starting of each program.
3. Make it sure that in each program, you have mentioned enough comments regarding the explanation of program instructions.
4. In the LMS please submit in your respective batch's submission portal. Submission in other batch's submission portal will not be checked.
5. Write your Name and Roll No in the .asm file itself (Use # to insert comment lines).
6. Without this you will score zero for that question.
7. Late submission will lead to penalty.
8. Any form of plagiarism/copying from peer or internet sources will lead penalty.