

# Computer Organization Laboratory

## Laboratory Test 1

(August 7, 2024)

### SET 1:

Write MIPS32 assembly language program to do the following.

- a) Read two integers **Num1** and **Num2** from the keyboard.
- b) Compute the GCD of the two numbers **Num1** and **Num2**.
- c) Test whether the GCD value is prime or not.
- d) Write separate functions to (i) compute GCD, and (ii) test for prime. Call these functions from the main function.
- e) Generate the outputs in proper formatted fashion as shown below.

### Sample Outputs:

```
Enter two numbers: 51 85
```

```
The GCD of 51 and 85 is 17
```

```
The GCD value is a prime
```

```
Enter two numbers: 52 130
```

```
The GCD of 52 and 130 is 26
```

```
The GCD value is not a prime
```

### Instructions:

- 1) Include your roll number, group number and name as comment lines at the beginning of the program.
- 2) Include relevant comments in the program. Use meaningful variable names and labels.
- 3) Save your file with the name `<group#>-<roll#>-LABTEST1.asm`

For instance, if your group number is 33 and roll number is 18CS10035, the file name will be `33-18CS10035-LABTEST1.asm`.