

Questions:

- a) What are the main characteristics of the MIPS R3000 processor?
- b) What are the different types of instructions used in MIPS?
- c) What are the directives used for declaring data in memory?
- d) Provide the declaration instruction for each of the following requests:

- Reservation of a 32-bit integer
- Reservation of multiple consecutive initialized words
- Reservation of a null-terminated string
- Reservation of multiple bytes without initialization

Exercise 1: What does this program do?

```
.data
    Var1: .asciiz "Entrez la .....: "  #
    Var2: .asciiz "Entrez la .....: "  #
    result1: .asciiz "..... est: "    #

.text
main:
    li $v0, 4          #
    la $a0, prompt1    #
    syscall
    li $v0, 5          #
    syscall
    move $t0, $v0       #
    li $v0, 4          #
    la $a0, prompt2    #
    syscall
    li $v0, 5          #
    syscall
    move $t1, $v0       #
    add $t2, $t0, $t1   #
    add $t2, $t2, $t2   #
    li $v0, 4          #
    la $a0, result1    #
    syscall
    move $a0, $t2       #
    li $v0, 1          #
    syscall
    li $v0, 10         #
    syscall
```

Exercise n°2 : Correct the program and explain what it does?

```
.data
prompt: .word "Entrez un entier: "      #
result1: .asciiz ".....: "          #
.data
main:
    li $v0, 6                #
    la $a2, prompt           #
    system call
    li $v0, 5                #
    system call
    move $t10, $v0           #
    Add $t1, $t0, $t0        #
    li $v1, 4                #
    la $a1, result1          #
    system call
    move $a1, $t1            #
    li $v0, 1                #
    system call
    li $v0, 1                #
    system call
```

Exercise n°3 :

Write a program in MIPS assembly that allows the user to input two integers and then displays their sum, difference, product, and quotient successively.
