Bahria University,

Karachi Campus

A picture containing text, room

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LAB EXPERIMENT NO.

**4**

LIST OF TASKS

|  |  |
| --- | --- |
| TASK NO | OBJECTIVE |
| **1** | **Where (to which window) is the output data displayed?** |
| **2** | **Write down the address of the first instruction of the program (see**  **the text window)** |
| **3** | **Write down the value of the register $sp just before you start the**  **Program.** |
| **4** | **Write down the values of $a0 and $v0 after execution in Register window and why?** |
| **5** | **Write an assembly program that Read and Print character** |
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Submitted On:

**11-Nov-21**

(Date: DD/MM/YY)

**Example**

**Write an assembly program that Read and Print integer.**

**Code**

.text

.globl main

main: #main program entry

li $v0,5 #Read integer

syscall #$v0= value read

move $a0,$v0 #$a0 = value to print

li $v0,1 # Print integer

syscall

li $v0,10 #Exit program

syscall

Graphical user interface, text, application, email

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Graphical user interface, application

Description automatically generated

**Task 1: Where (to which window) is the output data displayed?**

**Solution:**

The output data is displayed inside the Run I\O window.

**Output:**  
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**Task 2:** **Write down the address of the first instruction of the program (see the text window)**

**Solution:**

0x00400000

**Output:**

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**Task 3:** **Write down the value of the register $sp just before you start the program.**

**Solution:**

0x7fffeffc

**Output:**Register of $sp value is 29.



**Task 4:** **Write down the values of $a0 and $v0 after execution in Register window and why?**

**Solution:**

Value of $a0 =0x00000075

Value of $v0 = 0x0000000a

**Output:**

Table

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**Task 5:** **Write an assembly program that Read and Print character**

**Solution:**

.text

.globl main

main: #main program entry

li $v0,12 #Read Character

syscall #$v0= value read

move $a0,$v0 #$a0 = value to print

li $v0,11 # Print character

syscall

li $v0,10 #Exit program

syscall

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Graphical user interface, application

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