PRACTICAL ASSIGNMENT - MP

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Ques 1 Explain macro with example?

Ans 1 A macro is a sequence of instructions assigned by a name and could be used anywhere in the program
They are defined with "% macro" and "% endmacro" directives
The macro begins with the % macro directive and ends with the % endmacro directive

Syntax :

```
% macro macro_name no_of_parameters
    [macro body]
% endmacro
```

Eg.

```
% macro write_string 2
    mov EAX , 4
    mov EBX , 1
    mov ECX , % 1
    mov EDX , % 2

% endmacro .
```

Ques 2. Explain CMP instruction

Ans 2 CMP subtracts the second operand from the first but, unlike the SUB instructions does not store the result; only the flags are changed. CMP is typically used in conjunction with conditional jumps and the SET(cc) instruction. If an operand greater than one byte is compared to an immediate byte, the byte value is first sign-extended.

Ques 3. Draw and explain TSS segment of 80386?

Ans 3 All the information the processor needs in order to manage a task, is stored in a special type of segment, a task state segment

TSS is a special type of segment, used to manage the task. The 80386 uses TSS like a scratch-pad. It stores everything it needs to know about a task in (TSS) This means that task environment (context) is stored in TSS

TSS is not accessible to the general user program or program even at privilege level 0. The fields within TSS are accessible to only 80386.

The fields of a TSS are divided into two sets:

→ Dynamic set
→ Static set

TSS : Task State Segment

31		0	
Bit Map Offset	0000000000000000	T	64
0000000000000000	LDT		60
0000000000000000	GS		5C
0000000000000000	FS		58
0000000000000000	DS		54
0000000000000000	SS		50
0000000000000000	CS		4C
0000000000000000	ES		48
EDI			44
ESI			40
EBP			3C
ESP			38
EBX			34
EDX			30
ECX			2C
EAX			28
EFLAGS			24
EIP			20
CR3			1C
0000000000000000	SS2		18
EIP2			14
0000000000000000	SS1		10
EIP1			0C
0000000000000000	SS0		8
EIP 0			4
0000000000000000	Back link		0