

MP PRACTICAL ASSIGNMENT 7

Name : Priyanka Suresh Salunke
Class : SE Computer 1
PRN : F19111151

Ques 1 Explain string specific instruction?

Ans 1 There are five basic instructions for processing strings. They are

① MOVSB / MOVSW / MOVSD

These instructions moves/copies 1 byte, word or doubleword of data from memory location.

② LODS

This instruction loads from memory. If the operand is of 1 byte then it is loaded into the AL register. If the operand is one word then it is loaded into the AX register and a doubleword is loaded into the EAX register.

③ STOS

This instruction stores data from register (AL, AX, or EAX) to memory.

④ CMPS

This instruction compares two data items in memory. Data could be of byte size, word or double word.

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⑤ SCAS.

This instruction compares the content of register (AL, AX or EAX) with the contents of an item in memory.

Ques 2 Explain stack manipulation instruction

Ans 2 Stack manipulation instructions are as follows

① PUSH

Push decrements the stack pointer key by 2. If the operand size attribute of the instruction is 16 bits otherwise it decrements the stack pointer by 4.

② PUSHM

Pushes to stack area (multiple register)

③ POP

Pops a word from stack. Pop replaces the previous contents of the memory, the register or the word on the top of the 80386 stack, addressed by SS:SP or SS:ESP.

④ POPM

Pops from stack area (multiple register)