**Assembly Language – Macros (1-1)**

|  |  |  |
| --- | --- | --- |
| Group: | Student ID: | Name: |
| Student ID: | Name: |

* 1. Macros

Objective：Understanding structure and the usage of Macro

1. Complete the following code:

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| .data  myString BYTE 'A'  .code  convert MACRO chAddr ; convert: capital letters will be converted to lowercase  using Indirect Operands.   |  |  |  | | --- | --- | --- | | IFB < | chAddr | > ; If the parameter is empty, exit macro. |     EXITM  ENDIF  push eax ; Register will be used to record  mov al, [chAddr]  cmp al, 'A'  jb FINAL ; if al < 'A'，jump to FINAL  cmp al, 'Z'  ja FINAL ; if al > 'Z'，jump to FINAL  add al, 20h ; 'A' => 'a'   |  |  |  | | --- | --- | --- | | mov | [chAddr],al | ; Save the converted letter in its address |     FINAL:  pop eax ; The register back to its original value  ENDM  main PROC  mov esi, OFFSET myString   |  |  | | --- | --- | | convert esi | ; MACRO Call: convert, with parameter esi |   exit  main ENDP  END main |

