***Midterm Exam 2***

***Question 1:*** Choose the correct answer from the following

1. If the content of the ECX register is 00 00 BF 7A what will be the content of this register after executing the following instruction:

and ecx, 47

* 1. 00 00 00 2A
  2. FF FF FF 2A
  3. FF 00 00 2A
  4. none of them

1. If the content of the ECX register is 00 00 BF 7A what will be the content of this register after executing the following instruction:

shl ecx, 2

1. FF 02 FD E8
2. 00 02 FD E8
3. FF F2 FD E8
4. none of them
5. If the content of the ECX register is 00 00 BF 7A what will be the content of this register after executing the following instruction:

mov ecx, 47

1. 00 00 00 2F
2. FF FF FF 2F
3. FF 00 00 2F
4. none of them
5. Flags changed when **push** instruction is used
6. True
7. False
8. If the content of the **EBX** register is 22 33 44 55 what will be the content of this register after executing the following instruction:

push EBX

1. 55 44 33 22
2. 00 55 44 33
3. 22 33 44 55
4. none of them
5. If the content of the **ESP** register is 00 63 FB 60, what will be the content of this register after executing the instruction in the previous question (35)
   1. 00 63 FB 60
   2. 00 63 FB 5C
   3. 00 63 FB 64
   4. none of them
6. The easiest way to implement a for loop in 80x86 assembly program is using --------- instruction
7. lea
8. loop
9. for
10. none of them
11. Which of the following assembler directives are used to define a Procedure in the 8086 Microprocessor
12. PROCEDURE and ENDP
13. STARTP and ENDP
14. PROC and ENDPROC
15. None of the above
16. Which of the following is the correct syntax for calling a Macro?
17. MACRO macro\_name
18. MACRO macro\_name [ parameter's list]
19. macro\_name [parameter's list ]
20. None of the above
21. **xor** alter flags
22. SF and ZF
23. SF and CF
24. CF and OF
25. None of the above
26. The result of the instructions

mov ax,e275

and ax, 0a79dh

1. 4aa2
2. 4ba2
3. Aa42
4. none of them
5. In a program, a Macro is being called 'n' times. Then how many times is the machine code generated for the same
6. 1 time
7. 'n' times
8. 'n-1' times
9. None of the above
10. Which of the following is the correct instruction creates an array of 1000 logically uninitialized doublewords
11. array2 WORD 1000 DUP (?)
12. array2 DWORD 1000 DUP (?)
13. array2 DWORD 1000 DUP
14. None of the above
15. The correct way to put the address of the first element in a register
16. lea
17. loop
18. for
19. none of them
20. To make only bit 2 of **bx** zero without changing any other bits we use
21. and bx, 0fff0h
22. and bx, 0fff4
23. and bx, 0fff4h
24. none of them
25. The correct way to put the address of the first element in a register
26. lea
27. loop
28. for
29. none of them
30. The instruction **mov [ebx], eax ;** means
31. move user inputted number from eax into ebx
32. move user inputted number from eax into the array element
33. move user inputted number from ebx into the array element
34. none of them
35. The instruction **lea ebx, array ;** means
36. load ebx register into array address
37. load array last address into ebx register
38. load array first address into ebx register
39. none of them
40. The **Procedure**is
41. a program that is essentially a self-contained unit
42. a subprogram that is essentially a self-contained unit
43. a subprogram that is essentially a dependent unit
44. none of them
45. \_\_\_\_\_ directive specifies the end of execution of a program.
46. End
47. Return
48. Stop
49. Terminate
50. Suppose you want to calculate ***ebx mod 8***
51. and ebx, 0fffffff0h
52. and ebx, 00000007h
53. and ebx, 00000008h
54. none of them
55. The ***cdecl***is
56. a protocol provides one standard implementation scheme in the 32-bit environment
57. a program provides one standard implementation scheme in the 32-bit environment
58. a protocol provides one standard implementation scheme in the 64-bit environment
59. none of them
60. The action of pushing arguments on stack in right-to-left order happen in the
61. procedure code
62. calling program code
63. both of them
64. none of them
65. We can use --------- to flip bits
66. not
67. and
68. xor
69. none of them
70. Reference parameters are used to
71. to send a small argument to a procedure
72. to send a large argument to a procedure
73. both of them
74. none of them
75. The result of the instructions

**mov ax, 0e275h**

**xor ax, 0a79dh**

1. 4aa2
2. 4ba2
3. Aa42
4. none of them
5. You need a directive to allocate stack
6. true
7. false
8. Most access to stack is indirect
9. true
10. false
11. The instruction **pop 100** is correct
12. true
13. false
14. The instruction **push eax**
15. copy the content of the element pointed by esp to eax
16. copy the content of the element pointed by eax to esp
17. store the content of the element pointed by eax
18. none of them
19. The ESP content cannot be changed
20. true
21. false
22. when implement logical shift, SF and ZF will not change
23. true
24. false
25. When you implement the instructions

**mov ax, 0ac54h**

**not ax**

The value of SF & ZF will not changed

1. true
2. false
3. **sar** same as **sal**
4. true
5. false
6. The result of the instructions

**mov ax, 0e275h**

**ror ax, 1**

1. d4ae
2. d4ba
3. ea42
4. none of them
5. Types of left shift
6. logical left shift
7. arithmetic left shift
8. both of them
9. none of them
10. We can use --------- to set bits
11. or
12. and
13. xor
14. none of them
15. In the procedure body, parameters are located relative to the address in
16. ESP
17. EBP
18. EIS
19. none of them
20. Sending Parameter to the procedure can be done using
21. Stack
22. Registers
23. Both of them
24. none of them
25. atod is a
26. Macro
27. Procedure
28. Instruction
29. none of them

***Question 2:***

Write an assembly program that defines the following array

10 25 56 80 3

then create procedure ***reverse*** to display the array in reverse

***Question 3:***

Write an assembly program that has a macro ***maximum*** that finds the larger of two DWORD numbers inputted by the user