1. What is the BCD representation of 17?

A) 10001 B) 00010111 C)11 D)21 E)None of the options

1. 11H+3D= A) 14D B)14H C) EH D)20H E)None of the options
2. The circuit used to store one bit of data is known as A) Register B) Encoder C) Decoder D) Flip Flop E)None of the options
3. The ALU makes use of \_\_\_\_\_\_\_ to store the intermediate results  
   A) Accumulators B) Registers  
   C) Buffer D) Stack E) Queue
4. In case of, Zero-address instruction method the operands are stored in \_\_\_\_\_   
   A) Registers B)Accumulators  
   C) stack D) Cache E) all the options
5. The register used by the processor to keep track of the state of the last operation is called as \_\_\_\_\_\_ . A) Flag register B) Status register  
   C) Test register D) Log register E) none of the options
6. An instruction such as MOV AX, 20H is classified as: A) 0 address format B) 1 address format C) 2 address format D) 3 address format E. none of the options
7. The datapath of the CPU is made up of the following:

A) Registers, Control Unit and ALU B)ALU and Registers C) ALU and Control unit D) Control Unit and registers E. None of the options

1. The function of the RET instruction when defined in a procedure is:

A)To mark the end of the procedure

B)To return from a loop within the procedure

C)To return control to the caller of the procedure

D)To show that the procedure is in a different code segment E)None of the options

1. The memory model HUGE is used in creating assembly language program of format

A) .com only B) .exe only, C) both .com and .exe D) HUGE is not a valid memory model

1. In multiple Bus organisation, the registers are collectively placed and referred as \_\_\_\_\_\_   
   A) Set registers B) Register Block  
   C) Register file D) Map registers E) None of the options
2. The register that contains the value to be stored in memory or the last value read from memory is

A) MAR B) MBR C) IR D)IP E) none of the options

1. The instruction ‘ORG 200H’ is a

A) Machine Instruction. B) Pseudo instruction. C) High level instruction. D) Memory instruction E) None of the options

1. Which of the following options is not true for an 8086/8088 assembly language program which generates an executable file with extension .EXE

A) must contains a code segment

B) Must contains a data segment

C)must contains a stack segment

D) may or may not contain the Extra segment.

E) All the options are true

1. in a DEBUG program \_\_\_\_ will assemble a program and \_\_\_\_ will terminate the process and return to DOS

A) a and t B) l and c C) a and q

D) begin and end E) none of the options

1. In a .COM format, data of the program if any are stored in\_\_\_

A) Data segment B) Stack segment C)Code segment D) Extra segment E) none of the options

1. The condition flag ZF is set to 1 to indicate that,  
   A) The operation has resulted in an error  
   B) There is an overflow  
   C) The result is zero D) The result is 1

E) none of the options

1. The following definition of a procedure “DISPLAY PROC USES AX BX” Informs the procedure \_\_\_\_

A)To use only AX and BX registers B) that AX and BX are in already in use by another procedure C)To restore the initial content of AX and BX at the end of the procedure D) Not to change the content of AX and BX within the procedure

1. What is the corresponding high level construct of this code

CMP AL , OP1

JG L1

JMP L3

L1: CMP AL , OP2

JGE L2

JMP L3:

L2: statement

L3:

A) if((AL > OP1) && (AL > OP2)){ statement}

B) if((AL > OP1) ||(AL > OP2)){ statement}

C) if((AL > OP1) && (AL >= OP2)){ statement} D)if((AL > OP1) || (AL >= OP2)){ statement}

E)None of the options

1. what is the corresponding assembly language of the following high level statement

WHILE(OP1 < OP2)DO

statement1

statement2

ENDWHILE

|  |  |
| --- | --- |
| A)  START: CMP OP1 , OP2  JL L2  JMP L1  L2:  statement1’  statement2’  JMP START  L1: | B )  START: SUB OP1 , OP2  JL L1  JMP L2  L1:  statement1’  statement2’  JMP START  L2: |
| C)  START: CMP OP1 , OP2  JA L2  JMP L1  L2:  statement1’  statement2’  JMP START  L1: | D)  START: CMP OP1 , OP2  JLE L1  JMP L2  L1:  statement1’  statement2’  JMP START  L2: |

E) None of the options

1. What is the content of AX and DX register after the procedure MYPROC is executed with the initial content of AX=20H and DX=30H

MYPROC PROC

PUSH AX

PUSH DX

INC AX

DEC DX

POP AX

POP DX

RET

MYPROC ENDP

A) Ax=20H and BX=30H B) Ax=21H and BX=29H

C) Ax=30H and BX=20H D) Ax=29H and BX=21H

E) None of the options

1. What is the effect of the following instructions

mov ah, 8h

int 21h

A) read a character into AL without echo B) read a character into AL with echo C) read a character into DL without echo D) read a character into AL without echo

E) none of the options

1. The assembler directive EQU, when used in the instruction : Sum EQU 200 does,  
   A) Finds the first occurrence of Sum and assigns value 200 to it  
   B) Replaces every occurrence of Sum with 200  
   C) Re-assigns the address of Sum by adding 200 to its original address  
   D) Assigns 200 bytes of memory starting the location of Sum
2. What are the values of stmt1 and stmt2 for the fragment of the code below to display the pattern: AxxxxxAxxxxxAxxxxx

. . .

MOV AH , 02H

MOV CX , 3

L1: MOV DL , ‘A’

INT 21H

PUSH CX

MOV CX , 5

MOV DL , ‘x’

L2: INT 21H

Stmt1

POP CX

Stmt2

. . .

A) stmt1 is LOOP L1 and stmt2 is LOOP L2

B) stmt1 is LOOP L2 and stmt2 is LOOP L1

C) stmt1 is JMP L1 and stmt2 is JMP L2

D) stmt1 is JMP L2 and stmt2 is JMP L1

E) None of the options

1. What is the output of the following program ?

.MODEL SMALL

.STACK 200

.DATA

MESSAGE1 DB 'COSC204'

MESSAGE2 DB 'COSC$212' , '$'

.CODE

START: MOV AX , @DATA

MOV DS , AX

MOV AH , 09H

MOV DX, OFFSET MESSAGE1

MOV DX, OFFSET MESSAGE2

INT 21H

MOV AX, 4C00H

INT 21H

END START

A)COSC$212 B)COSC C)COSC204 D) COSC204COSC E)None of the options

1. What is the correct code to display the pattern AxxxxxAxxxxxAxxxxxAxxxxx

|  |  |
| --- | --- |
| A)  . . .  MOV AH , 02H  MOV AX , 4  L1: MOV DL , A’  INT 21H  PUSH AX  MOV AX , 5  MOV DL , ‘x’  L2: INT 21H  LOOP L2  POP AX  LOOP L1  . . . | B)  . . .  MOV AH , 02H  MOV CX , 4  L1: MOV DL , ‘A’  INT 21H  POP CX  MOV CX , 5  MOV DL , ‘x’  L2: INT 21H  LOOP L2  PUSH CX  LOOP L1  . . . |
| C)  . . .  MOV AH , 02H  MOV CX , 4  L1: MOV DL , ‘A’  INT 21H  PUSH CX  MOV CX , 5  MOV DL , ‘x’  L2: INT 21H  LOOP L2  POP CX  LOOP L1  . . . | D)  . . .  MOV AH , 02H  MOV CX , 4  L1: MOV DL , ‘A’  INT 21H  MOV CX , 5  MOV DL , ‘x’  L2: INT 21H  LOOP L2  LOOP L1  . . . |

E) None of the above

1. What is the output of the following fragment of code

. . .

MOV CX , 2

MOV AH , 02H

MOV DL , ‘F’

L1: INT 21H

PUSH DX

MOV DL,’G’

POP DX

INT 21h

DEC CX

JZ L1

. . .

A. FFFF B. FGFG C. FF D. FFGG E. None of them

1. What is the output of the following loop

. . .

MOV BL , 6

MOV AH , 02H

MOV DL , ‘F’

DEC DL

START: INT 21H

INC DL

DEC BL

JNZ START

. . .

A. FFFFFF B. ABCDEF C. EFGHIJ D. FGHIJK E. None of them

Use the following code to answer questions 29 and 30

.model small

.stack 200h

.data

msg1 db 'I love $ cosc 204 $'

l1 EQU $ - msg1

msg2 db 'cosc 204 is nice$'

l2 EQU $ - msg2

.code

start:

mov bx, @data

mov DS, bx

mov dx, offset msg1

mov ah , 40h

mov bx , 01h

mov cx , l1

INT 21H

mov ax, 4c00h

int 21h

end start

1. What is the output of the above program

A. I love B. I love cosc204 C. I love $ cosc 204 D. I love $ cosc 204 $ E. none of the options

1. In the above program if *mov ah, 40h*  is replaced with *mov ah, 09h* what will be the output

A. I love B. I love cosc204 C. I love $ cosc 204 D. I love $ cosc 204 $ E. error in the source code