MIDTERM EXAMINATION

Spring 2010

CS401- Computer Architecture and Assembly Language Programming (Session - 2)

Question No: 1 (Marks: 1) - Please choose one

The physical address of the stack is obtained by

► **SS:SP combination**

► SS:SI combination

► **SS:SP combination**

► ES:BP combination

► ES:SP combination

Question No: 2 (Marks: 1) - Please choose one

After the execution of instruction "RET "

► **SP is incremented by 2**

► **SP is incremented by 2**

► SP is decremented by 2

► SP is incremented by 1

► SP is decremented by 1

Question No: 3 (Marks: 1) - Please choose one

_____ The second byte in the word designated for one screen location holds

► **Character color on the screen**

► The dimensions of the screen

► Character position on the screen

► **Character color on the screen**

► ASCII code of the character

Question No: 4 (Marks: 1) - Please choose one

_____ REP will always

► **Decrement CX by 1**

► Increment CX by 1

► Increment CX by 2

► **Decrement CX by 1**

► Decrement CX by 2

Question No: 5 (Marks: 1) - Please choose one

The basic function of SCAS instruction is to

► **Compare**

► **Compare**

► Scan

► Sort

► Move data

Question No: 6 (Marks: 1) - Please choose one

Index registers are used to store _____

► **Address**

► Data

► Intermediate result

► **Address**

► Both data and addresses

Question No: 7 (Marks: 1) - Please choose one

The _____ bits of the _____ work independently and individually

► **flags register**

► index register

► base register

► **flags register**

► accumulator

Question No: 8 (Marks: 1) - Please choose one

To _____ convert any digit to its ASCII representation

► **Add 0x30 in the digit**

► **Add 0x30 in the digit**

► Subtract 0x30 from the digit

► Add 0x61 in the digit

► Subtract 0x61 from the digit

Question No: 9 (Marks: 1) - Please choose one

When a 32 bit number is divided by a 16 bit number, the quotient is of _____

► **4 bits**

► 32 bits

► 16 bits

► 8 bits

► **4 bits**

Question No: 10 (Marks: 1) - Please choose one

When a 16 bit number is divided by an 8 bit number, the quotient will be in

► **AL**

► AX

► **AL**

► AH

► DX

Question No: 11 (Marks: 1) - Please choose one

Which mathematical operation is dominant during the execution of SCAS instruction

► **Division**

► **Division**

► Multiplication

► Addition

► Subtraction

Question No: 12 (Marks: 1) - Please choose one

If

AX contains decimal -2 and BX contains decimal 2 then after the execution of instructions:

CMP AX, BX

JA label

► **Zero flag will set**

► Jump will be taken

► **Zero flag will set**

► ZF will contain value -4

► Jump will not be taken

Question No: 13 (Marks: 1) - Please choose one

The execution of the instruction "mov word [ES : 160], 0x1230" will print a character "0" on the screen at

► **First column of second row**

► Second column of first row

► **First column of second row**

► Second column of second row

► First column of third row

Question No: 14 (Marks: 1) - Please choose one

If the direction of the processing of a string is from higher addresses towards lower addresses then

► **DF is cleared**

► ZF is cleared

► **DF is cleared**

► ZF is set

► DF is set

Question No: 15 (Marks: 1) - Please choose one

The instruction ADC has_____ Operand(s)

► **3**

► 0

► 1

► 2

► **3**

Question No: 16 (Marks: 1) - Please choose one

Which bit of the attributes byte represents the red component of background color ?

► **3**

► **3**

► 4

► 5

► 6

Question No: 17 (Marks: 2)

What is difference between SHR and SAR instructions?

SHR

The SHR inserts a zero from the left and moves every bit one position to the right and copy the rightmost bit in the carry flag.

SAR

The SAR shift every bit one place to the right with a copy of the most significant bit left at the most significant place. The bit dropped from the right is caught in the carry basket. The sign bit is retained in this operation.

Question No: 18 (Marks: 2)

For what purpose "**INT 1**" is reserved ?

Question No: 19 (Marks: 2)

Define implied operand?

It is always in a particular register say the accumulator. It needs to not be mentioned in the instruction.

Question No: 20 (Marks: 3)

Describe the working of the CALL instruction with the reference of Stack.

Question No: 22 (Marks: 5)

What is the difference between LES and LDS instructions ?

The string instructions need source and destination in the form of a segment offset pair. LES and LDS load a segment register and a general purpose register from two consecutive memory locations. LES loads ES while LDS loads DS. Both instructions has two parameters, one is the general purpose register to be loaded and the other is the memory location from which to load these registers. The major application of these instructions is when a subroutine receives a segment offset pair as an argument and the pair is to be loaded in a segment and an offset register.

Question No: 23 (Marks: 5)

Explain the process of ADC?

Normal addition has two operands and the second operand is added to the first operand. However ADC has three operands. The third implied operand is the carry flag. The ADC instruction is specifically placed for extending the capability of ADD. Further more consider an instruction "ADC AX, BX." Normal addition would have just added BX to AX, however ADC first adds the carry flag to AX and then adds BX to AX. Therefore the last carry is also included in the result. The lower halves of the two numbers to be added are first added with a normal addition. For the upper halves a normal addition would lose track of a possible carry from the lower halves and the answer would be wrong. If a carry was generated it should go to the upper half. Therefore the upper halves are added with an addition with carry instruction.

MIDTERM EXAMINATION

Spring 2010

CS401- Computer Architecture and Assembly Language Programming (Session - 3)

Ref No: 1353756

Time: 60 min

Marks: 38

Student Info	
StudentID:	**BC080402322**
Center:	**OPKST**

ExamDate:	5/26/2010 12:00:00 AM

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Q No.	1	2	3	4	5	6	7	8	Total
Marks									
Q No.	9	10	11	12	13	14	15	16	
Marks									
Q No.	17	18	19	20	21	22	23		
Marks									

Question No: 1 (Marks: 1) - Please choose one

After the execution of SAR instruction

► **The msb is replaced by a 0**

► The msb is replaced by 1

► The msb retains its original value

► The msb is replaced by the value of CF

Question No: 2 (Marks: 1) - Please choose one

RETF will pop the offset in the

► BP

► IP

► SP

► SI

Question No: 3 (Marks: 1) - Please choose one

_____ The routine that executes in response to an INT instruction is called

► ISR

► IRS

► ISP

► IRT

Question No: 4 (Marks: 1) - Please choose one

_____ The first instruction of "COM" file must be at offset:

► 0x0010

► 0x0100

► 0x1000

► 0x0000

Question No: 5 (Marks: 1) - Please choose one

"Far" jump is not position relative but is _____

► memory dependent

► **Absolute**

► temporary

► indirect

Question No: 6 (Marks: 1) - Please choose one

Only _____ instructions allow moving data from memory to memory.

► **string**

► word

► indirect

► stack

Question No: 7 (Marks: 1) - Please choose one

After the execution of instruction "RET 2"

► **SP is incremented by 2**

► SP is decremented by 2

► SP is incremented by 4

► SP is decremented by 4

Question No: 8 (Marks: 1) - Please choose one

_____ DIV instruction has

► **Two forms**

► Three forms

► Four forms

► Five forms

Question No: 9 (Marks: 1) - Please choose one

When the operand of DIV instruction is of 16 bits then implied dividend will be of

► 8 bits

► 16 bits

► **32 bits**

► 64 bits

Question No: 10 (Marks: 1) - Please choose one

After the execution of MOVS instruction which of the following registers are updated

► SI only

► DI only

► **SI and DI only**

► SI, DI and BP only

Question No: 11 (Marks: 1) - Please choose one

In 8088 architecture, whenever an element is pushed on the stack

► SP is decremented by 1

► **SP is decremented by 2**

► SP is decremented by 3

► SP is decremented by 4

Question No: 12 (Marks: 1) - Please choose one

When a very large number is divided by very small number so that the quotient is larger than the space provided, this is called

► Divide logical error

► **Divide overflow error**

► Divide syntax error

► An illegal instruction

Question No: 13 (Marks: 1) - Please choose one

In the word designated for one screen location, the higher address contains

► The character code

► The attribute byte

► The parameters

► The dimensions

Question No: 14 (Marks: 1) - Please choose one

Which of the following options contain the set of instructions to open a window to the video memory?

► mov AX, 0xb008

mov ES, AX

► mov AX, 0xb800

mov ES, AX

► mov AX, 0x8b00

mov ES, AX

► mov AX, 0x800b

mov ES, AX

Question No: 15 (Marks: 1) - Please choose one

In a video memory, each screen location corresponds to

► One byte

► **Two bytes**

► Four bytes

► Eight bytes

Question No: 16 (Marks: 1) - Please choose one

The execution of the instruction "mov word [ES : 0], 0x0741" will print character "A" on screen , background color of the screen will be

► **Black**

► White

► Red

► Blue

Question No: 17 (Marks: 2)

Why is it necessary to provide the segment and offset address in case of FAR jump ?

Segment and offset must be given to a far jump. Because, sometimes we may need to go from one code segment to another, and near and short jumps cannot take us there. Far jump must be used and a two byte segment and a two byte offset are given to it. It loads CS with the segment part and IP with the offset part.

Question No: 18 (Marks: 2)

What's your understanding about Incrementing and Decrementing Stack?

Whenever an element is pushed on the stack SP is decremented by two and whenever an element is popped on the stack SP is incremented by two.

A decrementing stack moves from higher addresses to lower addresses as elements are added in it while an incrementing stack moves from lower addresses to higher addresses as elements are added.

As the 8088 stack works on word sized elements. Single bytes cannot be pushed or popped from the stack.

Question No: 19 (Marks: 2)

Number2:

IF DF=0 what its represent and IF DF=1 what its represent ?

The direction of movement is controlled with the Direction Flag (DF) in the flags register. If this flag is cleared DF=0, the direction is from lower addresses towards higher addresses and if this flag is set DF=1, the direction is from higher addresses to lower addresses. If DF is cleared, DF = 0 this is called the autoincrement mode of string instruction, and if DF is set, DF=1, this is called the autodecrement mode. There are two instructions to set and clear the direction flag.

Question No: 20 (Marks: 3)

What is the Difference between CALL and RET

The CALL instruction allows temporary diversion and therefore reusability of code.

The word return holds in its meaning that we are to return from where we came and need no explicit destination.

Therefore RET takes no arguments and transfers control back to the instruction following the CALL that took us in this subroutine.

Question No: 21 (Marks: 3)

Tell the Formula to scroll up the screen

rep movsw **scroll up**

```
scrollup: push bp
mov bp,sp
push ax
push cx
push si
push di
push es
push ds
mov ax, 80 ; load chars per row in ax
mul byte [bp+4]          ; calculate source position
mov si, ax                    ; load source position in si
push si                  ; save position for later use
shl si, 1                ; convert to byte offset
mov cx, 2000                  ; number of screen locations
sub cx, ax                    ; count of words to move
mov ax, 0xb800
mov es, ax                    ; point es to video base
mov ds, ax                    ; point ds to video base
```

```
xor di, di                      ; point di to top left column
cld                             ; set auto increment mode
rep movsw                       ; scroll up
mov ax, 0x0720                  ; space in normal attribute
pop cx                          ; count of positions to clear
rep stosw                       ; clear the scrolled space
pop ds
pop es
pop di
pop si
pop cx
pop ax
pop bp
ret 2
```

Question No: 22 (Marks: 5)

Explain how extended shifting is performed

Using our basic shifting and rotation instructions we can effectively shift a 32bit number in memory word by word. We cannot shift the whole number at once since our architecture is limited to word operations. The algorithm we use consists of just two instructions and we name it extended shifting.

num1: dd 40000

shl word [num1], 1

rcl word [num1+2], 1

The DD directive reserves a 32bit space in memory; however the value we placed there will fit in 16bits. So we can safely shift the number left 16 times.

The least significant word is accessible at num1 and the most significant word is accessible at num1+2.

The two instructions are carefully crafted such that the first one shifts the lower word towards the left and the most significant bit of that word is dropped in carry. With the next instruction we push that dropped bit into the least significant bit of the next word effectively joining the two 16bit words.

The final carry after the second instruction will be the most significant bit of the higher word, which for this number will always be zero.

MIDTERM EXAMINATION

Spring 2010

CS401- Computer Architecture and Assembly Language Programming (Session - 6)

Time: 60 min

Marks: 38

For Teacher's Use Only									
Q No.	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**Total**
Marks									
Q No.	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	
Marks									
Q No.	**17**	**18**	**19**	**20**	**21**	**22**	**23**		
Marks									

Question No: 1 (Marks: 1) - Please choose one

Suppose AL contains 5 decimal then after two left shifts produces the value as

► 5

► **10**

► 15

► 20

Question No: 2 (Marks: 1) - Please choose one

In STOS instruction, the implied source will always be in

► **AL or AX registers**

► DL or DX registers

► BL or BX registers

► CL or CX registers

Question No: 3 (Marks: 1) - Please choose one

After the execution of STOSW the CX will be

► **Decremented by 1**

► Decremented by 2

► Incremented by 1

► Incremented by 2

Question No: 4 (Marks: 1) - Please choose one

The basic function of SCAS instruction is to

► Compare

► **Scan**

► Sort

► Move data

Question No: 5 (Marks: 1) - Please choose one

Which is the unidirectional bus ?

(I) Control Bus

(II) Data Bus

(III) Address Bus

. ▶I only

. ▶II only

. **▶III only**

. ▶I and II only

Question No: 6 (Marks: 1) - Please choose one

_____ The operation of CMP is to

. **▶Subtract Source from Destination**

. ▶Subtract Destination to from Source

. ▶Add 1 to the Destination

. ▶Add Source and Destination

Question No: 7 (Marks: 1) - Please choose one

_____ The registers IP, SP, BP, SI, DI, and BX all can contain a _____offset.

. ▶8-bit

. **▶16-bit**

. ▶32-bit

. ▶64-bit

Question No: 8 (Marks: 1) - Please choose one

_____ In assembly the CX register is used normally as a _____register.

▶ source

▶ counter

▶ index

▶ pointer

Question No: 9 (Marks: 1) - Please choose one

All the addressing mechanisms in iAPX88 return a number called _____ *address*.

- **effective**
- faulty
- indirect
- direct

Question No: 10 (Marks: 1) - Please choose one

Which bit of the attributes byte represents the blue component of foreground color

- 3
- 2
- 1
- **0**

Question No: 11 (Marks: 1) - Please choose one

When a 32 bit number is divided by a 16 bit number, the quotient will be stored in

- **AX**
- BX
- CX
- DX

Question No: 12 (Marks: 1) - Please choose one

"mov byte [num1], 5" is _____ instruction.

► **legal**

► illegal

► stack based

► memory indirect

Question No: 13 (Marks: 1) - Please choose one

Which of the following options contain the set of instructions to open a window to the video memory?

► mov AX, 0xb008

mov ES, AX

► **mov AX, 0xb800**

mov ES, AX

► mov AX, 0x8b00

mov ES, AX

► mov AX, 0x800b

mov ES, AX

Question No: 14 (Marks: 1) - Please choose one

The execution of the instruction "mov word [ES : 0], 0x0741" will print character "A" on screen, color of the character will be

► Black

► **White**

► Red

► Blue

Question No: 15 (Marks: 1) - Please choose one

Which of the following flags will be affected by MOVSW?

► DF

► PF

► ZF

► **No effect on flags**

Question No: 16 (Marks: 1) - Please choose one

Which bit of the attributes byte represents the blue component of background color ?

► 3

► **4**

► 5

► 6

Question No: 17 (Marks: 2)

Define short jump

Question No: 18 (Marks: 2)

Every character is displayed on the screen in the form of a word. what each byte of this word represents?

Question No: 19 (Marks: 2)

Number2:

IF DF=0 what its represent and IF DF=1 what its represent ?

Question No: 20 (Marks: 3)

When the instruction "push ax" is executed in decrementing stack how the value of SP will change

Question No: 21 (Marks: 3)

Explain LES and LDS instructions.

Question No: 22 (Marks: 5)

Explain how extended shifting is performed

Question No: 23 (Marks: 5)

Explain MUL instruction in both cases (i) if the source operand is byte (ii) if the source operand is a word?

MIDTERM EXAMINATION

Spring 2010

CS401- Computer Architecture and Assembly Language Programming (Session - 3)

Ref No: 1353756

Time: 60 min

Marks: 38

Student Info	
StudentID:	BC080402322
Center:	OPKST
ExamDate:	5/26/2010 12:00:00 AM

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Q No.	1	2	3	4	5	6	7	8	Total
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Marks									
Q No.	17	18	19	20	21	22	23		
Marks									

Question No: 1 (Marks: 1) - Please choose one

After the execution of SAR instruction

► **The msb is replaced by a 0**

► The msb is replaced by 1

► The msb retains its original value

► The msb is replaced by the value of CF

Question No: 2 (Marks: 1) - Please choose one

RETF will pop the offset in the

► BP

► **IP**

► SP

► SI

Question No: 3 (Marks: 1) - Please choose one

The routine that executes in response to an INT instruction is called

► **ISR**

► IRS

► ISP

► IRT

Question No: 4 (Marks: 1) - Please choose one

_____ The first instruction of "COM" file must be at offset:

► 0x0010

► 0x0100

► 0x1000

► 0x0000

Question No: 5 (Marks: 1) - Please choose one

_____

"Far" jump is not position relative but is _____

► memory dependent

► Absolute

► temporary

► indirect

Question No: 6 (Marks: 1) - Please choose one

Only _____ instructions allow moving data from memory to memory.

► **string**

► word

► indirect

► stack

Question No: 7 (Marks: 1) - Please choose one

After the execution of instruction "RET 2"

► **SP is incremented by 2**

► SP is decremented by 2

► SP is incremented by 4

► SP is decremented by 4

Question No: 8 (Marks: 1) - Please choose one

DIV instruction has

► **Two forms**

► Three forms

► Four forms

► Five forms

Question No: 9 (Marks: 1) - Please choose one

When the operand of DIV instruction is of 16 bits then implied dividend will be of

► 8 bits

► 16 bits

► 32 bits

► 64 bits

Question No: 10 (Marks: 1) - Please choose one

After the execution of MOVS instruction which of the following registers are updated

► SI only

► DI only

► SI and DI only

► SI, DI and BP only

Question No: 11 (Marks: 1) - Please choose one

In 8088 architecture, whenever an element is pushed on the stack

- ► SP is decremented by 1
- ► **SP is decremented by 2**
- ► SP is decremented by 3
- ► SP is decremented by 4

Question No: 12 (Marks: 1) - Please choose one

When a very large number is divided by very small number so that the quotient is larger than the space provided, this is called

- ► Divide logical error
- ► **Divide overflow error**
- ► Divide syntax error
- ► An illegal instruction

Question No: 13 (Marks: 1) - Please choose one

In the word designated for one screen location, the higher address contains

► **The character code**

► The attribute byte

► The parameters

► The dimensions

Question No: 14 (Marks: 1) - Please choose one

Which of the following options contain the set of instructions to open a window to the video memory?

► mov AX, 0xb008

mov ES, AX

► **mov AX, 0xb800**

mov ES, AX

► mov AX, 0x8b00

mov ES, AX

► mov AX, 0x800b

mov ES, AX

Question No: 15 (Marks: 1) - Please choose one

In a video memory, each screen location corresponds to

► One byte

► **Two bytes**

► Four bytes

► Eight bytes

Question No: 16 (Marks: 1) - Please choose one

The execution of the instruction "mov word [ES : 0], 0x0741" will print character "A" on screen , background color of the screen will be

► **Black**

► White

► Red

► Blue

Question No: 17 (Marks: 2)

Why is it necessary to provide the segment and offset address in case of FAR jump ?

Segment and offset must be given to a far jump. Because, sometimes we may need to go from one code segment to another, and near and short jumps cannot take us there. Far jump must be used and a two byte segment and a two byte offset are given to it. It loads CS with the segment part and IP with the offset part.

1 mid term paper cs401

1. Stack is a _ data structure _____
2. Standard ASCII has 128 characters
3. Which bit is refer to the red component of foreground color (2 is answer)
   Which bit is refer to the red component of background color (6 is answer)
4. When a 32 bit number is divided by a 16 bit number, the quotient is of (16 bit)

5. There are just 5 block processing instructions in 8088.
6. After the execution of instruction "RET 2 " increment or decrement

II. Question of 5 marks regarding CMPS. below is the answer

CMPS subtracts the source location DS:SI from the destination location ES:DI. Source and Destination are unaffected. SI and DI are updated accordingly. CMPS compares two blocks of memory for equality or inequality of the block. It subtracts byte by byte or word by word. If used with a REPE or a REPNE prefix is repeats as long as the blocks are same or as long as they are different. For example it can be used for find a substring. A substring is a string that is contained in another string. For example "has" is contained in "Mary has a little lamp." Using CMPS we can do the operation of a complex loop in a single instruction. Only the REPE and REPNE prefixes are meaningful with this instruction

CS401 COMPUTER ARCHITECTURE AND ASSEMBLY LANGUAGE

SPRING 2010 FINAL QUIZ HELD ON 27 JUL 2010

1. Assembly language is not a low level language.

a. True

b. False

2. In case of COM File first command parameter is stored at _____ offset of program segment prefix.

a. 0x80 (Not Confirm)

b. 0x82

c. 0x84

d. 0x86

3. Address always goes from

a. Processor to meory

b. Memory to processor

c. Memory to memory

d. None of the above

4. The sourse register in OUT is

a. AL or AX

b. BL or BX

c. CL or CX

d. DL or DX

5. By default CS is associated with

a. SS

b. BP

c. CX

d. IP

6. Which of the following pins of parallel port are grounded

a. 10-18

b. 18-25

c. 25-32

d. 32-39

7. In the instruction mov word [es:160], 0x1230, 30 represents the character

a. A

b. B

c. 0

d. 1

8. On executing 0x21 0x3D, if file cant be opened then

a. CF will contain 1

b. CF will contain 0

c. ZF will contain 1

d. ZF will contain 0

9. Which of the following IRQ is cascading interrupt

a. IRQ 0

b. IRQ 1

c. IRQ 2

d. IRQ 3

10. The execution of instruction mov word [es:160], 0x1230, will print a character on the screen at

a. First column of second row

b. Second column of first row

c. Second column of second row

d. First column of third row

The maximum parameters a subroutine can receive are _____ when all the general registers are used

7

In a video memory, each screen location corresponds to:

Two byte

The operations of placing items on the stack and removing them from there are called push and ret.

In And the out put only one if

Both are 1

In XOR operation the output is 1 if

both inputs are differents

Conditional jumps can only

Short

When the operand of DIV instruction is of 16 bits then implied dividend will be of

8-bits

Far jump is position relative.

False

In string instructions, the mode is called auto-increment mode when:

DF is cleared

Which bit of the attributes byte represents the blue component of foreground color

0

PUSH increments SP (the stack pointer) by two and then transfers a word from the source operand to the top of stack now pointed to by SP.

Far is intra segment

false

Parameters clears from the stack by the

How many characters standard ASCII has?

128

In the instruction "mov word [es:160], 0x1230", 12 means:

green color on blue background

In And the out put only one if

Both are 1

The Operation of pop ax is AX <-- [SP] SP <-- SP-2

False

Which of the following is the pair of register used to access memory in string instructions?

DI and SI

_____ transfers the word at the current top of stack (pointed to by SP) to the destination operand and then increments SP by two to point to the new top of stack.

POP

In the instruction "mov word [es:160], 0x1230", 30 represents the character _____

0

_____ decrements SP (the stack pointer) by two and then transfers a word from the source operand to the top of stack now pointed to by SP.

PUSH

PUSH increments SP (the stack pointer) by two and then transfers a word from the source operand to the top of stack now pointed to by SP

False

After the execution of STOSWB, the CX will be:

Decremented by 1

The execution of the instruction "mov word [ES : 160], 0x1230" will print a character on the screen at:

First column of second row

In string manipulation, the instruction to clear the direction flag is:

CLD

When the operand of DIV instruction is of 16-bits then implied dividend will be stored in

AX register

In near jump we jump any where within a segment.

True

_____ transfers the word at the current top of stack (pointed to by SP) to the destination operand and then increments SP by two to point to the new top of stack

POP

purpose of MOVS instruction is:

move register to register

Which type of shif operation it is "The zero bit is inserted from the right and every bit moves one position to its left with the most significant bit dropping into the carry flag"

Both SHL and SAL

MIDTERM EXAMINATION

Spring 2010

CS401- Computer Architecture and Assembly Language Programming (Session - 2)

Student Info	
StudentID:	
Center:	**OPKST**
ExamDate:	

For Teacher's Use Only									
Q No.	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**Total**
Marks									
Q No.	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	
Marks									
Q No.	**17**	**18**	**19**	**20**	**21**	**22**	**23**		
Marks									

Question No: 1 (Marks: 1) - Please choose one

_____ The physical address of the stack is obtained by

► **SS:SP combination**

► SS:SI combination

► **SS:SP combination**

► ES:BP combination

► ES:SP combination

Question No: 2 (Marks: 1) - Please choose one

_____

After the execution of instruction "RET "

► **SP is incremented by 2**

► **SP is incremented by 2**

► SP is decremented by 2

► SP is incremented by 1

► SP is decremented by 1

Question No: 3 (Marks: 1) - Please choose one

_____ The second byte in the word designated for one screen location holds

► **Character color on the screen**

► The dimensions of the screen

► Character position on the screen

► **Character color on the screen**

► ASCII code of the character

Question No: 4 (Marks: 1) - Please choose one

_____ REP will always

► **Decrement CX by 1**

► Increment CX by 1

► Increment CX by 2

► **Decrement CX by 1**

► Decrement CX by 2

Question No: 5 (Marks: 1) - Please choose one

The basic function of SCAS instruction is to

► **Compare**

► **Compare**

► Scan

► Sort

► Move data

Question No: 6 (Marks: 1) - Please choose one

Index registers are used to store _____

► **Address**

► Data

► Intermediate result

► **Address**

► Both data and addresses

Question No: 7 (Marks: 1) - Please choose one

The bits of the _____ work independently and individually

► **flags register**

► index register

► base register

► **flags register**

► accumulator

Question No: 8 (Marks: 1) - Please choose one

_____ To convert any digit to its ASCII representation

► **Add 0x30 in the digit**

► **Add 0x30 in the digit**

► Subtract 0x30 from the digit

► Add 0x61 in the digit

► Subtract 0x61 from the digit

Question No: 9 (Marks: 1) - Please choose one

_____

When a 32 bit number is divided by a 16 bit number, the quotient is of

► **4 bits**

► 32 bits

► 16 bits

► 8 bits

► **4 bits**

Question No: 10 (Marks: 1) - Please choose one

When a 16 bit number is divided by an 8 bit number, the quotient will be in

► **AL**

► AX

► **AL**

► AH

► DX

Question No: 11 (Marks: 1) - Please choose one

Which mathematical operation is dominant during the execution of SCAS instruction

► **Division**

► **Division**

► Multiplication

► Addition

► Subtraction

Question No: 12 (Marks: 1) - Please choose one

If AX contains decimal -2 and BX contains decimal 2 then after the execution of instructions:

CMP AX, BX

JA label

► **Zero flag will set**

► Jump will be taken

► **Zero flag will set**

► ZF will contain value -4

► Jump will not be taken

Question No: 13 (Marks: 1) - Please choose one

The execution of the instruction "mov word [ES : 160], 0x1230" will print a character "0" on the screen at

► **First column of second row**

► Second column of first row

► **First column of second row**

► Second column of second row

► First column of third row

Question No: 14 (Marks: 1) - Please choose one

If the direction of the processing of a string is from higher addresses towards lower addresses then

► **DF is cleared**

► ZF is cleared

► **DF is cleared**

► ZF is set

► DF is set

Question No: 15 (Marks: 1) - Please choose one

The instruction ADC has_____ Operand(s)

► **3**

► 0

► 1

► 2

► **3**

Question No: 16 (Marks: 1) - Please choose one

Which bit of the attributes byte represents the red component of background color ?

► **3**

► **3**

► 4

► 5

► 6

Question No: 17 (Marks: 2)

What is difference between SHR and SAR instructions?

SHR

The SHR inserts a zero from the left and moves every bit one position to the right and copy the rightmost bit in the carry flag.

SAR

The SAR shift every bit one place to the right with a copy of the most significant bit left at the most significant place. The bit dropped from the right is caught in the carry basket. The sign bit is retained in this operation.

Question No: 18 (Marks: 2)

For what purpose "**INT 1**" is reserved ?

Question No: 19 (Marks: 2)

Define implied operand?

It is always in a particular register say the accumulator. It needs to not be mentioned in the instruction.

Question No: 20 (Marks: 3)

Describe the working of the CALL instruction with the reference of Stack.

Question No: 21 (Marks: 3)

Tell

MID 2012 papers questions

Q:! data clear algorithum in assmly language code? 5 MARKS
Q: 2 DEFINItion pop and push give example? 3 marks
q3: what is stack n define with example?
Q4: multiplication in assmbley language 5 marks

MID term paper

Assalam o Alaikum

Today I attempted CS401 paper

Paper was of 38 marks.

16 MCQs and 22 marks paper comprised of long questions.

2 marks question was "Describe Push Function".

2 marks question was "What is direct addressing"?

2 marks question was "What is conditional jump"?

3 marks question was "Differentiate between push and pop function with an example".

3 marks question was "How are strings handled"?

5 marks question was "Differentiate between SHR, SAL, SAR".

5 marks question was "Write a calculator for adding strings".

Take Care

Allah Hafiz

SOLVED MCQS

MCQS of CS401

( )

Question # 1

There are three busses to communicate the processor and memory named as _____

1) : address bus.,data bus and data bus.

2) : addressing bus.,data bus and data bus.

3) : address bus.,datamove bus and data bus.

4) : address bus.,data bus and control bus..

Correct Option : 4 **From :** **Lecture 1**

Question # 2

The address bus is unidirectional and address always travels from processor to memory.

1) : TRUE

2) : FALSE

3) :

4) :

Correct Option : 1 **From :** **Lecture 1**

Question # 3

Data bus is bidirectional because_____

1) : To way

2) : Data moves from both, processor to memory and memory to processor,

3) : Data moves from both, processor to memory and memory to data Bus,

4) : None of the Given

Correct Option : 3 **From :** **Lecture 1**

Question # 4

Control bus_____

1) : is Not Important.

2) : is Important .

3) : bidirectional.

4) : unidirectional .

Correct Option : 3 **From :** **Lecture 1**

Question # 5

A memory cell is an n-bit location to store data, normally _____also called a byte

1) : 4-bit

2) : 8-bit

3) : 6-bit

4) : 80-bit

Correct Option : 2 **From :** **Lecture 1**

Question # 6

The number of bits in a cell is called the cell width._____ define the memory completely.

1) : Cell width and number of cells,

2) : cell number and width of the cells,

3) : width

4) : Height

Correct Option : 1 **From :** **Lecture 1**

Question # 7

for memory we define two dimensions. The first dimension defines how many _____bits are there in a single memory cell.

1) : parallel

2) : Vertical

3) : long

4) : short

Correct Option : 1 **From :** **Lecture 1**

Question # 8

_____ operation requires the same size of data bus and memory cell width.

1) : Normal

2) : Best and simplest

3) : first

4) : None of the Given

Correct Option : 2 **From :** **Lecture 1**

Question # 9

Control bus is only the mechanism. The responsibility of sending the appropriate signals on the control bus to the memory is of the_____.

1) : Data Bus

2) : processor

3) : Address Bus

4) : None of the Given

Correct Option : 2 **From :** **Lecture 1**

Question # 10

In "total: dw 0 " Opcode total is a _____

1) : Literal

2) : Variable

3) : Label

4) : Starting point

Correct Option : 3 **From :** **Lecture 10**

Question # 11

| 0 |-->| 1 | 1 | 0 | 1 | 0 | 0 | 0 | -->| C | is a example of _____

1) : Shl

2) : sar

3) : Shr

4) : Sal

Correct Option : 3 **From :** **Lecture 10**

Question # 12

| C |<--| 1 | 1 | 0 | 1 | 0 | 0 | 0 | <--| 0 | is a example of _____

1) : Shl

2) : sar

3) : Shr

4) : Sal

Correct Option : 1 **From :** **Lecture 10**

Question # 13

ADC has _____ operands.

1) : two

2) : three

3) : Five

4) : Zero

Correct Option : 2 **From :** **Lecture 10**

Question # 14

Numbers of any size can be added using a proper combination of _____.

1) : ADD and ADC

2) : ABD and ADC

3) : ADC and ADC

4) : None of the Given

Correct Option : 1 **From :** **Lecture 11**

Question # 15

Like addition with carry there is an instruction to subtract with borrows called_____.

1) : SwB

2) : SBB

3) : SBC

4) : SBBC

Correct Option : 2 **From :** **Lecture 11**

Question # 16

if "and ax, bx" instruction is given, There are _____ operations as a result

1) : 16 AND

2) : 17 AND

3) : 32 AND

4) : 8 AND

Correct Option : 1 **From :** **Lecture 12**

Question # 17

_____can be used to check whether particular bits of a number are set or not.

1) : AND

2) : OR

3) : XOR

4) : NOT

Correct Option : 1 **From :** **Lecture 12**

Question # 18

_____can also be used as a masking operation to invert selective bits.

1) : AND

2) : OR

3) : XOR

4) : NOT

Correct Option : 3 **From :** **Lecture 12**

Question # 19

Masking Operations are Selective Bit _____

1) : Clearing, XOR, Inversion and Testing

2) : Clearing, Setting, Inversion and Testing

3) : Clearing, XOR, AND and Testing

4) : None of the Given

Correct Option : 2 **From :** **Lecture 12**

Question # 20

The _____ instruction allows temporary diversion and therefore reusability of code.

1) : CALL

2) : RET

3) : AND

4) : XOR

Correct Option : 1 **From :** **Lecture 13**

Question # 21

CALL takes a label as _____ and execution starts from that label,

1) : argument

2) : Lable

3) : TXt

4) : Register

Correct Option : 1 **From :** **Lecture 13**

Question # 22

When the _____ instruction is encountered and it takes execution back to the instruction following the CALL.

1) : CALL

2) : RET

3) : AND

4) : XOR

Correct Option : 2 **From :** **Lecture 13**

Question # 23

_____ Both the instructions are commonly used as a pair, however technically they are independent in their operation.

1) : RET and ADC

2) : Cal and SSb

3) : CALL and RET

4) : ADC and SSB

Correct Option : 3 **From :** **Lecture 13**

Question # 24

The CALL mechanism breaks the thread of execution and does not change registers, except _____.

1) : SI

2) : IP

3) : DI

4) : SP

Correct Option : 2 **From :** **Lecture 13**

Question # 25

Stack is a _____ that behaves in a first in last out manner.

1) : Program

2) : data structure

3) : Heap

4) : None of the Given

Correct Option : 2 **From :** **Lecture 14**

Question # 26

If _____ is not available, stack clearing by the callee is a complicated process.

1) : CALL

2) : SBB

3) : RET n

4) : None of the Given

Correct Option : 3 **From :** **Lecture 14**

Question # 27

When the stack will eventually become full, SP will reach 0, and thereafter wraparound producing unexpected results. This is called stack _____

1) : Overflow

2) : Leakage

3) : Error

4) : Pointer

Correct Option : 1 **From :** **Lecture 14**

Question # 28

The pop operation makes a copy from the top of the stack into its_____.

1) : Register

2) : operand

3) : RET n

4) : Pointer

Correct Option : 2 **From :** **Lecture 14**

Question # 29

_____decrements SP (the stack pointer) by two and then transfers a word from the source operand to the top of stack

1) : PUSH

2) : POP

3) : CALL

4) : RET

Correct Option : 1 **From :** **Lecture 14**

Question # 30

POP transfers the word at the current top of stack (pointed to by SP) to the destination operand and then _____ SP by two to point to the new top of stack.

1) : increments

2) : dcrements

3) : ++

4) : --

Correct Option : 1 **From :** **Lecture 14**

Question # 31

The trick is to use the _____and _____operations and save the callers' value

on the stack and recover it from there on return.

1) : POP, ADC

2) : CALL, RET

3) : CALL, RET n

4) : PUSH, POP

Correct Option : 4 **From :** **Lecture 14**

Question # 32

To access the arguments from the stack, the immediate idea that strikes is to _____ them off the stack.

1) : PUSH

2) : POP

3) : CALL

4) : Rrgister

Correct Option : 2 **From :** **Lecture 15**

Question # 33

push bp
we are _____

1) : sending bp copy to stack

2) : making bp copy from stack

3) : pushing bp on the stack

4) : doing nothing

Correct Option : 3 **From :** **Lecture 15**

Question # 34

Local Variables means variables that are used within the _____

1) : Subroutine

2) : Program

3) : CALL

4) : Label

Correct Option : 1 **From :** **Lecture 15**

Question # 35

Standard ASCII has 128 characters with assigned numbers from _____.

1) : 1to 129

2) : 0 to 127

3) : 0 to 128

4) : None of the Given

Correct Option : 2 **From :** **Lecture 16**

Question # 36

When _____ is sent to the VGA card, it will turn pixels on and off in such a way that a visual representation of 'A' appears on the screen.

1) : 0x60

2) : 0x90

3) : 0x30

4) : 0x40

Correct Option : 4 **From :** **Lecture 16**

Question # 37

Which bit is refer to the Blinking of foreground character

1) : 6

2) : 7

3) : 5

4) : 3

Correct Option : 2 **From :** **Lecture 16**

Question # 38

Which bit is refer to the Intensity component of foreground color

1) : 4

2) : 5

3) : 3

4) : 7

Correct Option : 3 **From :** **Lecture 16**

Question # 39

Which bit is refer to the Green component of background color

1) : 1

2) : 5

3) : 3

4) : 7

Correct Option : 2 **From :** **Lecture 16**

Question # 40

Which bit is refer to the Green component of foreground color

1) : 1

2) : 5

3) : 3

4) : 7

Correct Option : 1 **From :** **Lecture 16**

Question # 41

String can be indicate bye given

1) : db 0x61, 0x61, 0x63

2) : db 'a', 'b', 'c'

3) : db 'abc'

4) : All of the above

Correct Option : 4 **From :** **Lecture 16**

Question # 42

The first form divides a 32bit number in DX:AX by its 16bit operand and stores the _____ quotient in AX

1) : 16bit

2) : 17bit

3) : 32bit

4) : 64bit

Correct Option : 1 **From :** **Lecture 17**

Question # 43

The _____ (division) used in the process is integer division and not floating point division.

1) : DIV instruction

2) : ADC instruction

3) : SSB instruction

4) : DIVI instruction

Correct Option : 1 **From :** **Lecture 17**

Question # 44

_____(multiply) performs an unsigned multiplication of the source operand and the accumulator.

1) : Multi

2) : DIV

3) : MUL

4) : Move

Correct Option : 3 **From :** **Lecture 18**

Question # 45

The desired location on the screen can be calculated with the following formulae.

1) : location = (hypos * 80 + SP) * 3

2) : location = (hypos * 80 + slocation) * 2

3) : location = (hypos * 80 + epos) * 2

4) : None of the Given

Correct Option : 3 **From :** **Lecture 18**

Question # 46

To play with string there are 5 instructions that are _____

1) : STOS, LODS, CMPS, SCAS, and MOVS

2) : MUL, DIV, ADD, ADC and MOVE

3) : SSB, ADD, CMPS, ADC, and MOVS

4) : None of the Given

Correct Option : 1 **From :** **Lecture 18**

Question # 47

_____transfers a byte or word from register AL or AX to the string element addressed by ES:DI and updates DI to point to the next location.

1) : LODS

2) : STOS

3) : SCAS

4) : MOVE

Correct Option : 2 **From :** **Lecture 18**

Question # 48

_____ transfers a byte or word from the source location DS:SI to AL or AX and updates SI to point to the next location.

1) : LODS

2) : STOS

3) : SCAS

4) : MOVE

Correct Option : 1 **From :** **Lecture 18**

Question # 49

_____compares a source byte or word in register AL or AX with the destination string element addressed by ES: DI and updates the flags.

1) : LODS

2) : STOS

3) : SCAS

4) : MOVE

Correct Option : 3 **From :** **Lecture 18**

Question # 50

_____ repeat the following string instruction while the zero flag is set and REPNE or REPNZ repeat the following instruction while the zero flag is not set.

1) : REP or REPZ

2) : REPE or REPZ

3) : REPE or RPZ

4) : RPE or REPZ

Correct Option : 2 **From :** **Lecture 18**

Question # 51

The basic purpose of a computer is to perform operations, and operations need _____.

1) : order

2) : nothing

3) : operands

4) : bit

Correct Option : 3 **From :** **Lecture 2**

Question # 52

Registers are like a scratch pad ram inside the processor and their operation is very much like normal_____.

1) : Number

2) : opreations

3) : memory cells

4) : None of the Given

Correct Option : 3 **From :** **Lecture 2**

Question # 53

There is a central register in every processor called the _____ and The word size of a processor is defined by the width of its_____.

1) : accumulator,accumulator

2) : data bus,accumulator

3) : accumulator, Address Bus

4) : accumulator,memory

Correct Option : 1 **From :** **Lecture 2**

Question # 54

_____does not hold data but holds the address of data

1) : Pointer, Segment, or Base Register

2) : Pointer, Index, or Base Register

3) : General Registers

4) : Instruction Pointer

Correct Option : 2 **From :** **Lecture 2**

Question # 55

"The program counter holds the address of the next instruction to be _____"

1) : executed.

2) : called

3) : deleted

4) : copy

Correct Option : 1 **From :** **Lecture 2**

Question # 56

There are _____ types of "instruction groups"

1) : 4

2) : 5

3) : 3

4) : 2

Correct Option : 1 **From :** **Lecture 2**

Question # 57

These instructions are used to move data from one place to another.

1) : TRUE

2) : FALSE

3) :

4) :

Correct Option : 1 **From :** **Lecture 2**

Question # 58

"mov" instruction is related to the _____ Group.

1) : Arithmetic and Logic Instructions

2) : Data Movement Instructions

3) : Program Control Instructions

4) : Special Instructions

Correct Option : 2 **From :** **Lecture 2**

Question # 59

_____allow changing specific processor behaviors and are used to play with it.

1) : Special Instructions

2) : Data Movement Instructions

3) : Program Control Instructions

4) : Arithmetic and Logic Instructions

Correct Option : 1 **From :** **Lecture 2**

Question # 60

8088 is a 16bit processor with its accumulator and all registers of _____.

1) : 32 bits

2) : 6 bits

3) : 16 bits

4) : 64 bits

Correct Option : 3 **From :** **Lecture 2**

Question # 61

The _____of a processor means the organization and functionalities of the registers it contains and the instructions that are valid on the processor.

1) : Manufactures

2) : architecture

3) : Deal

4) : None of the Given

Correct Option : 2 **From :** **Lecture 2**

Question # 62

Intel IAPX88 Architecture is _____

1) : More then 25 old

2) : New

3) : Not Good

4) : None of the Given

Correct Option : 1 **From :** **Lecture 2**

Question # 63

LES loads _____

1) : ES

2) : DS

3) : PS

4) : LS

Correct Option : 1 **From :** **Lecture 20**

Question # 64

LDS loads_____.

1) : ES

2) : DS

3) : PS

4) : LS

Correct Option : 2 **From :** **Lecture 20**

Question # 65

REP allows the instruction to be repeated _____ times allowing blocks of memory to be copied.

1) : DX

2) : CX

3) : BX

4) : AX

Correct Option : 2 **From :** **Lecture 20**

Question # 66

_____pops IP, then CS, and then FLAGS.

1) : Ret n

2) : REZA

3) : REPE

4) : IRET

Correct Option : 4 **From :** **Lecture 21**

Question # 67

_____ , Trap, Single step Interrupt

1) : INT 0

2) : INT 1

3) : INT 3

4) : INT 0

Correct Option : 2 **From :** **Lecture 21**

Question # 68

_____,NMI-Non Maskable Interrupt

1) : INT 0

2) : INT 1

3) : INT 3

4) : INT 0

Correct Option : 3 **From :** **Lecture 21**

Question # 69

To hook an interrupt we change the _____ corresponding to that interrupt.

1) : SX

2) : vector

3) : AX

4) : BX

Correct Option : 2 **From :** **Lecture 22**

Question # 70

The iAPX88 architecture consists of_____registers.

1) : 13

2) : 12

3) : 9

4) : 14

Correct Option : 4 **From :** **Lecture 3**

Question # 71

General Registers are _____

1) : AX, BX, CX, and DX

2) : XA, BX, CX, and DX

3) : SS,SI and DI

4) : 3

Correct Option : 1 **From :** **Lecture 3**

Question # 72

AX means we are referring to the extended 16bit "A" register. Its upper and lower byte are separately accessible as _____.

1) : AH and AL

2) : A Lower and A Upper

3) : AL, AU

4) : AX

Correct Option : 1 **From :** **Lecture 3**

Question # 73

AX is General purpose Register where A stands for_____.

1) : Acadmic

2) : Ado

3) : Architecture

4) : Accumulator

Correct Option : 4 **From :** **Lecture 3**

Question # 74

The B of BX stands for _____because of its role in memory addressing.

1) : Busy

2) : Base

3) : Better

4) : None of the Given

Correct Option : 2 **From :** **Lecture 3**

Question # 75

The D of DX stands for Destination as it acts as the destination in _____.

1) : I/O operations

2) : operations

3) : memory cells

4) : Memory I/O operations

Correct Option : 1 **From :** **Lecture 3**

Question # 76

The C of CX stands for Counter as there are certain instructions that work with an automatic count in the _____.

1) : DI register

2) : BX register

3) : CX register

4) : DX register

Correct Option : 3 **From :** **Lecture 3**

Question # 77

_____are the index registers of the Intel architecture which hold address of data and used in memory access.

1) : SI and SS

2) : PI and DI

3) : SI and IP

4) : SI and DI

Correct Option : 4 **From :** **Lecture 3**

Question # 78

In Intel IAPX88 architecture _____ is the special register containing the address of the next instruction to be executed.

1) : AX

2) : PI

3) : IP

4) : SI

Correct Option : 3 **From :** **Lecture 3**

Question # 79

SP is a memory pointer and is used indirectly by a set of _____.

1) : instructions

2) : Pointers

3) : Indexes

4) : Variables

Correct Option : 1 **From :** **Lecture 3**

Question # 80

_____is also a memory pointer containing the address in a special area of memory called the stack.

1) : SP

2) : BP

3) : PB

4) : AC

Correct Option : 2 **From :** **Lecture 3**

Question # 81

_____is bit wise significant and accordingly each bit is named separately.

1) : AX

2) : FS

3) : IP

4) : Flags Register

Correct Option : 4 **From :** **Lecture 3**

Question # 82

When two 16bit numbers are added the answer can be 17 bits long, this extra bit that won't fit in the target register is placed in the _____where it can be used and tested

1) : carry flag

2) : Parity Flag

3) : Auxiliary Carry

4) : Zero Flag

Correct Option : 1 **From :** **Lecture 3**

Question # 83

Program is an ordered set of instructions for the processor.

1) : TRUE

2) : FALSE

3) :

4) :

Correct Option : 1 **From :** **Lecture 3**

Question # 84

For Intel Architecture "operation destination, source" is way of writing things.

1) : TRUE

2) : FALSE

3) :

4) :

Correct Option : 1 **From :** **Lecture 3**

Question # 85

Operation code " add ax, bx " _____.

1) : Add the bx to ax and change the bx

2) : Add the ax to bx and change the ax

3) : Add the bx to ax and change the ax

4) : Add the bx to ax and change nothing

Correct Option : 3 **From :** **Lecture 3**

Question # 86

The maximum memory iAPX88 can access is_____.

1) : 1MB

2) : 2MB

3) : 3MB

4) : 128MB

Correct Option : 1 **From :** **Lecture 4**

Question # 87

The maximum memory iAPX88 can access is 1MB which can be accessed with _____.

1) : 18 bits

2) : 20 bits

3) : 16 bits

4) : 2 bits

Correct Option : 2 **From :** **Lecture 4**

Question # 88

_____address of 1DED0 where the opcode B80500 is placed.

1) : physical memory

2) : memory

3) : efective

4) : None of the Given

Correct Option : 1 **From :** **Lecture 4**

Question # 89

16 bit of Segment and Offset Addresses can be converted to 20bit Address i.e Segment Address with lower four bits zero + Offset Address with _____ four bits zero = 20bit Physical Address

1) : Middle

2) : lower

3) : Top

4) : upper

Correct Option : 4 **From :** **Lecture 4**

Question # 90

When adding two 20bit Addresses a carry if generated is dropped without being stored anywhere and the phenomenon is called address_____.

1) : wraparound

2) : mode

3) : ping

4) : error

Correct Option : 1 **From :** **Lecture 4**

Question # 91

segments can only be defined a 16byte boundaries called _____ boundaries.

1) : segment

2) : paragraph

3) : Cell

4) : RAM

Correct Option : 1 **From :** **Lecture 4**

Question # 92

in a Program CS, DS, SS, and ES all had the same value in them. This is called _____.

1) : equel memory

2) : overlapping segments

3) : segments hidding

4) : overlapping SI

Correct Option : 2 **From :** **Lecture 4**

Question # 93

"db num1" size of the memory is _____

1) : 1byte

2) : 4bit

3) : 16bit

4) : 2byte

Correct Option : 1 **From :** **Lecture 5**

Question # 94

" 1------------[org 0x0100]

```
2----------mov ax, [num1] ; load first number in ax
3----------mov bx, [num2] ; load second number in bx
4----------add ax, bx _____________________________________
5----------int 0x21
6----------
7----------num1: dw 5
8----------num2: dw 10
```

Comments for the 4 are :

1) : No comments Will be

2) : ; accumulate sum in add

3) : ; accumulate sum in ax

4) : ; accumulate sum in Bx

Correct Option : 3 **From :** **Lecture 5**

Question # 95

In " mov ax, bx " is _____ Addressing Modes.

1) : Immediate

2) : Indirect

3) : Direct

4) : Register

Correct Option : 4 **From :** **Lecture 5**

Question # 96

In "mov ax, [bx] " is _____ Addressing Modes

1) : Based Register Indirect

2) : Indirect

3) : Base Indirect

4) : Immediate

Correct Option : 1 **From :** **Lecture 5**

Question # 97

In "mov ax, 5 " is _____ Addressing Modes

1) : Immediate

2) : Indirect

3) : Indirect

4) : Register

Correct Option : 1 **From :** **Lecture 6**

Question # 98

In " mov ax, [num1+bx] " is _____ ADDRESSING

1) : OFFSET+ Indirect

2) : Register + Direct

3) : Indirect + Reference

4) : BASEd REGISTER + OFFSET

Correct Option : 4 **From :** **Lecture 7**

Question # 99

"base + offset addressing " gives This number which came as the result of addition is called the _____.

1) : Address

2) : mode

3) : effective address

4) : Physical Address

Correct Option : 3 **From :** **Lecture 7**

Question # 100

"mov ax, [cs:bx]" associates _____ for this one instruction

1) : CS with BX

2) : BX with CS

3) : BX with AX

4) : None of the Given

Correct Option : 2 **From :** **Lecture 7**

Question # 101

For example
BX=0100
DS=FFF0
And Opcode are;

move [bx+0x0100], Ax
now what is the effective memory address;

1) : 0020

2) : 0200

3) : 0300

4) : 0x02

Correct Option : 2 **From :** **Lecture 7**

Question # 102

For example
BX=0100
DS=FFF0
And Opcode are;
move [bx+0x0100], Ax
now what is the physical memory address;

1) : 0020

2) : 0x0100

3) : 0x10100

4) : 0x100100

Correct Option : 2 **From :** **Lecture 7**

Question # 103

In " mov [1234], al " is _____ Addressing Modes.

1) : Immediate

2) : Indirect

3) : Direct

4) : Register

Correct Option : 3 **From :** **Lecture 8**

Question # 104

In " mov [SI], AX " is _____ Addressing Modes.

1) : Basef Register Indirect

2) : Indirect

3) : Indexed Register Indirect

4) : Immediate

Correct **From :** **Lecture 8**

Option : 3

Question # 105

In " mov ax, [bx - Si] " is _____ ADDRESSING

1) : Basef Register Indirect

2) : Indirect

3) : Direct

4) : illegal

Correct Option : 4 **From :** **Lecture 8**

Question # 106

In " mov ax, [BL] " there is error i.e. _____

1) : Address must be 16bit

2) : Address must be 8bit

3) : Address must be 4bit

4) : 8 bit to 16 bit move illegal

Correct Option : 4 **From :** **Lecture 8**

Question # 107

In " mov ax, [SI+DI] " there is error i.e. _____

1) : Two indexes can't use as Memory Address

2) : index can't use as Memory Address

3) : I don't Know

4) : None of the Given

Correct Option : 1 **From :** **Lecture 8**

Question # 108

In JNE and JNZ there is difference for only _____;

1) : Programmer or Logic

2) : Assembler

3) : Debugger

4) : IAPX88

Correct Option **From :** **Lecture 9**

: 1

Question # 109

JMP is Instruction that on executing take jump regardless of the state of all flags is called_____

1) : Jump

2) : Conditional jump

3) : Unconditional jump

4) : Stay

Correct Option : 3 **From :** **Lecture 9**

Question # 110

When result of the source subtraction from the destination is zero, zero flag is set i.e. ZF=1
its mean that;

1) : DEST = SRC

2) : DEST != SRC

3) : DEST < SRC

4) : DEST > SRC

Correct Option : 1 **From :** **Lecture 9**

Question # 111

When an unsigned source is subtracted from an unsigned destination and the destination is smaller, borrow is needed which sets the _____.

1) : carry flag i.e CF = 0

2) : carry flag i.e CF = 1

3) : Carry Flag + ZF=1

4) : None of the Given

Correct Option : 2 **From :** **Lecture 9**

Question # 112

In the case of unassigned source and destination when subtracting and in the result ZF =1 OR CR=1 then _____

1) : DEST = SRC

2) : DEST != SRC

3) : UDEST ? USRC

4) : DEST > SRC

Correct Option : 3 **From :** **Lecture 9**

Question # 113

In the case of unassigned source and destination when subtracting and in the result ZF =0 AND CR=0 then _____

1) : DEST = SRC

2) : DEST != SRC

3) : UDEST < USRC

4) : UDEST > USRC

Correct Option : 4 **From :** **Lecture 9**

Question # 114

In the case of unassigned source and destination when subtracting and in the result CR=0 then _____

1) : DEST = SRC

2) : DEST != SRC

3) : UDEST < USRC

4) : UDEST ? USRC

Correct Option : 4 **From :** **Lecture 9**

Question # 115

_____This jump is taken if the last arithmetic operation produced a zero in its destination. After a CMP it is taken if both operands were equal.

1) : Jump if zero(JZ)/Jump if equal(JE)

2) : Jump if equal(JE)

3) : Jump if zero(JZ)

4) : No Jump fot This

Correct Option : 1 **From :** **Lecture 9**

Question # 116

_____This jump is taken after a CMP if the unsigned source is smaller than or equal to the unsigned destination.

1) : JBE(Jump if not below or equal)

2) : JNA(Jump if not above)/JBE(Jump if not below or equal)

3) : JNA(Jump if not above)

4) : No Jump fot This

Correct Option : 2 **From :** **Lecture 9**