

CS401-Assembly Language

Solved MCQS for Midterms papers

Solved by JUNAID MALIK and Team



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Question No:1

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

► 0x0010

► **0x0100 (Page 19)**

► 0x1000

► 0x0000

Question No:2

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

► **Black (Page 81)**

► White

► Red

► Blue

Question No:3

The iAPX888 architecture consists of _____ register.

► 12

► 14

► **16 (Page 15)**

► 18

Question No:3

The iAPX888 architecture consists of _____ register.

► 12

► 14

► **16 (Page 15)**

► 18

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Question No:5

One screen location corresponds to a

► Byte

► **Word (Page 80)**

► Double byte

➤ Double word

Question No:6

When an item is pushed on the decrementing stack, the top of the stack is

► **First decremented and then element copied on to the stack (Page 68)**

► First incremented and then element copied on to the stack

► Decrement after the element copied on to the stack

► Incremented after the element copied on to the stack

Question No:7

one Each screen location corresponds to a word, the lower byte of this word contains ____

► **The character code (Page 81)**

► The attribute byte

► The parameters

► The dimensions

Question No:8

if ax contains decimal -2 and BX contains decimal 2 then after the execution of instructions: CMP AX, BX
,JA label

► **Jump will be taken**

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- ▶ Zero flag will set
- ▶ ZF will contain value -4
- ▶ Jump will not be taken

Question No:9

If D is "35" is shift to left 2 bits the new value

- ▶ 35
- ▶ 70
- ▶ **140**
- ▶ 17

Question No:10

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

▶ carry flag (Page 16)

- ▶ Parity Flag
- ▶ Auxiliary Carry
- ▶ Zero Flag

Question No: 11

Only instructions allow moving data from memory to memory.

▶ string (Page 29)

- ▶ word
- ▶ indirect
- ▶ stack

Question No:12

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

▶ AL (Page 85)

- ▶ AX

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- ▶ AH
- ▶ DX

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Question No:13

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

- ▶ 3
- ▶ 4
- ▶ 5

▶ 6 (Page 81)

Question No:14

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

- ▶ Shl
- ▶ sar

▶ Shr (Page 52)

- ▶ Sal

Question No:15

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

▶ Special Instructions (Page 14)

- ▶ Data Movement Instructions
- ▶ Program Control Instructions
- ▶ Arithmetic and Logic Instructions

Question No:16

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

- ▶ 32 bits
- ▶ 6 bits

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► 16 bits (Page 14)

- 64 bits

Question No:17

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

► PUSH (Page 71)

- POP
- CALL
- RET

Question No: 18

In instruction ADC the operands can be

- Two register only
- Two register and one memory location
- **CF and two other operands (Page 57)**
- ZF and two other operands

Question No:19

After the execution of instruction "RET"

➤ SP is incremented by 2 (Page 66)

- SP is decremented by 2
- SP is incremented by 1
- SP is decremented by 1

Question No: 20

The extended ASCII has

- 64 characters
 - **128 characters (Page 79)** AL-JUNAID INSTITUTE OF GROUP
- 256 characters
- 502 characters

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Question No:21

The second byte in the word designated for screen location holds

o The dimension of the screen

➤ Character position on the screen

- **Character color on the screen (Page 81)**
- ASCII code of the character

Question No: 22

REP will always o Incremented CX by 1

- Incremented CX by 2
- **Decrement CX by 1 (Page 92)**
- Decrement CX by 2

Question No:23

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

- **ISR (Page 103)**
- IRS
- ISP
- IRT

Question No:24

In the instruction "CMP AX,BX" the contents of

- AX are changed
- BX are changed
- CX are changed
- **Flag register are changed (Page 39)**

Question No:25

All the addressing mechanisms in iAPX86 return a number called _____ address

- **o Effective (Page 33)**
- faulty
- indirect
- direct

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Question No:26

The execution of the instruction "mov word [ES: DI], 0x0720"

- **will clear next character on screen (Page 82)**
 - o will print "20" at top left of the screen
- will print "20" at top right of the screen
- will move DI at location 0720 on the screen

Question No: 27

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

- **legal (Page 30)**
- illegal
- stack based
- memory indirect

Question No:28

MOV instruction transfers a byte or word from which of the following source location.

- DS:DI
- ES:SI
- ES:DI
- **DS:SI (Page 92)**

Question No:29

If AX contains FFFFh, then after execution of instruction "SAL ax, 3", the result will be

- -3
- +3
- -8
- +8

Question No:30

If the decimal number "35" is shifted by two bit to left, the new value will be

- 35
 - 70
 - 140 (00100011 = 35 , 10001100=140)
- o17

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Question No: 31

While using STOSB, if DF=1 then

- The value of SI will be incremented by one
 - The value of SI will be incremented by two
 - The value of SI will be decremented by one
 - The value of SI will be decremented by two

Question No:32

After the execution of STOSW, the CX will be

- Decremented by 1
- **Decrement by 2 (Page 92)**
- Incremented by 1
- Incremented by 2

Question No: 33

The memory address always move from

- processor to memory
- memory to processor
- memory to peripheral
- peripheral to processor

Question No:34

An offset alone is not complete without

- **Segment (Page 34)**
- code label
- index register
- data label

Question No:35

Code Segment is associated to _____ register by default.

- **IP (Page 34)**
- SS
- BP

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- CX

Question No:36

After the execution of SAR instruction:

- ▶ MSB remain as it is
- ▶ MSB Will change

▶ **MSB move to left (Page 52)**

- ▶ No change will occur.

Question No:37

ASCII stands for _____.

The screen is two dimensional space having:

- ▶ 25 Rows and 25 Columns
- ▶ 25 Rows and 80 Columns
- ▶ 80 Rows and 80 Columns

▶ **80 Rows and 25 Columns (Page 80)**

Question No:38

In the Rotate Right Operation every bit moves one position to right and the bit dropped from the right is inserted at the left and:

▶ **Dropped in CF (Page 53)**

- ▶ moves to AL
- ▶ Don't go anywhere.

Question No:39

_____ of the following flags will be affected by MOVSB?

▶ **DF**

- ▶ ZF
- ▶ PF
- ▶ No effect on flags

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Question No:40

The iAPX88 processor supports _____ modes of memory access.

► 5

► 6

► **7 (Page 35)**

► 8

Question No:41

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

► Program

► **data structure (Page 67)**

► Heap

► None of the Given

Question No:42

The physical address of the stack is obtained by

► SS:SI combination

► **SS:SP combination (Page 68)**

► ES:BP combination

► ES:SP combination

Question No:43

Foreground and background parameter will be

► 32bits

► 16bits

► **8bits**

► 4bits

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Question No:44

The clear screen operation initialize whole block of memory

- ▶ 0741
- ▶ 0417
- ▶ 0714

▶ **0174, 0720 (Page 91)**

Question No:45

In STOSB instruction, when DF is Set, SI is

- ▶ Incremented by 1
- ▶ Incremented by 2

▶ **Decrement by 1**

- ▶ Decrement by 2

Question No:46

Assembly language is:

▶ **Low-level programming language**

- ▶ High-level programming language
- ▶ Also known as machine language
- ▶ Not considered closer to the computer

Question No:47

A 32 Bit processor has accumulator of -----

- ▶ 8 bit
- ▶ 16 bit

▶ **32 bit (Page 12)**

- ▶ 64 bit

Question No:48

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To transfer control back the RET instruction take

► 1 argument

► 1 argument

► **3 arguments (Page 72) (Not sure)**

► No arguments

Question No:49

RET is executed, it recovers the values from

► Register

► **Stack (Page 71)**

► Data segment

► Code segment

Question No:50

To convert any digit to its ASCII representation

► **Add 0x30 in the digit (Page 80)**

► Subtract 0x30 from the digit

► Add 0x61 in the digit

► Subtract 0x61 from the digit

Question No:51

The prevalent convention in most high level languages is stack clearing by the

► Caller

► **Callee (Page 74)**

► RET

► Stack

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Question No:52

After execution of JCXZ instruction CX will be changed with flag affect.

- ▶ CF
- ▶ OF
- ▶ DF

▶ **None of Above (Page 43)**

Question No:53

Execution of the instruction "mov word [ES : 0], 0x0741" will print

▶ **"A" appear on the top left of screen (Page 81)**

- ▶ "A" appear on the top right of screen
- ▶ "A" appear on the center of screen
- ▶ "A" appear on the bottom left of screen

Question No:54

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

CMP AX, BX JA label

- ▶ Jump will be taken
- ▶ Zero flag will set
- ▶ ZF will contain value -4
- ▶ Jump will not be taken

Question No:55

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 (Page 81) rep

- ▶ mov AX, 0x8b00

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mov ES, AX

► mov AX, 0x800b

mov ES, AX

Question No:56

If D is "35" is shift to left 2 bits the new value

► 35

► 70

► 140

► 17

Question No:57

Execution of the instruction "mov word [ES : 0], 0x1230" will print the character color will

► Green

► White

► Red

► Black

Question No:58

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 (Page 52)

Question No:59

RETF will pop the offset in the

► BP

► IP (Page 69)

► SP

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- ▶ SI

Question No:60

Far" jump is not position relative but is _____

- ▶ memory dependent

▶ Absolute (Page 46)

- ▶ Temporary

- ▶ indirect

Question No:61

After the execution of instruction "RET 2"

- ▶ SP is incremented by 2
- ▶ SP is decremented by 2

▶ SP is incremented by 4 (Page 66)

- ▶ SP is decremented by 4

Question No:62

DIV instruction has

▶ Two forms (Page 85)

- ▶ Three forms
- ▶ Four forms
- ▶ Five forms

Question No:63

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

▶ 8 bits (Page 85)

- ▶ 16 bits
- ▶ 32 bits
- ▶ 64 bits

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Question No:64

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

- ▶ SI only
- ▶ DI only

▶ SI and DI only (Page 92)

- ▶ SI, DI and BP only

Question No:65

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

- ▶ The character code

▶ The attribute byte (Page 81)

- ▶ The parameters
- ▶ The dimensions

Question No:66

If the address of memory location Num1 is 0117 and its content is 0005 then after execution of the instruction "mov bx, Num1" bx will contain

- ▶ 0005

▶ 0117 (Page 30)

- ▶ Num1
- ▶ 1701

Question No:67

In STOS instruction, the implied source will always be in

▶ AL or AX registers (Page 92)

- ▶ DL or DX registers
- ▶ BL or BX registers
- ▶ CL or CX registers

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Question No:68

The shift logical right operation inserts

- A zero at right
- **A zero at left (Page 52)**
- A one at right
- A one at right

Question No:69

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

▶ source

▶ **counter (Page 32)**

▶ index

▶ pointer

Question No:70

Which is the unidirectional bus ?

(I) Control Bus

(II) Data Bus

(III) Address Bus

▶ I only

▶ II only

▶ **III only (Page 9)**

▶ I and II only

Question No:71

JC and JNC test the _____ flag.

▶ **carry (Page 41)**

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- ▶ parity
- ▶ zero
- ▶ sign

Question No:72

After the execution of REP instruction CX will be decremented then which of the following flags will be affected?

- ▶ CF
- ▶ OF
- ▶ DF

▶ No flags will be affected (Page 93)

Question No:73

which bit sets the character "blinking" on the screen?

- ▶ 5
- ▶ 6

▶ 7 (Page 7)

- ▶ 8

Question No:74

If we want to divide a signed number by 2, this operation can better be accomplished by

- ▶ SHR

▶ SAR (Page 52)

- ▶ SHL
- ▶ SAL

Question No:75

mov ax,5 has

- ▶ 1 operand

▶ 2 opeand (Page 25)

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► 3 operand

► 4 operand

Question No:76

REP will always

► Increment CX by 1

► Increment CX by 2

► **Decrement CX by 1 (Page 92)**

► Decrement CX by 2

Question No:77

Index registers are used to store _____

► Data

► Intermediate result

► **Address (Page 16)**

► Both data and addresses

Question No:78

The bits of the _____ work independently and individually

► index register

► base register

► **flags register (Page 12)**

► accumulator

Question No:79

Which mathematical operation is dominant during the execution of SCAS instruction

► Division

► Multiplication

► Addition

► Subtraction

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Question No:80

The instruction ADC has _____ Operand(s)

- ▶ 0
- ▶ 1
- ▶ 2

▶ **3 (Page 56)**

Question No:81

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

▶ source

▶ **counter (Page 92)**

- ▶ index
- ▶ pointer

Question No:82

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

▶ **AX (Page 85)**

- ▶ BX
- ▶ CX
- ▶ DX

Question No:83

In STOSB instruction SI is decremented or incremented by

▶ 4

▶ **1 (Page 92) SI and DI both are Index registers**

- ▶ 2
- ▶ 3

Question No:84

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CMPS instruction subtracts the source location to the destination location. Destination location always lies in

- ▶ DS:SI
- ▶ DS:DI
- ▶ ES:SI

▶ **ES:DI (Page 93)**

Question No:85

Regarding assembler, which statement is true:

▶ **Assembler converts mnemonics to the corresponding OPCODE (Page 13)**

- ▶ Assembler converts OPCODE to the corresponding mnemonics
- ▶ Assembler executes the assembly code all at once
- ▶ Assembler executes the assembly code step by step

Question No:86

If "BB" is the OPCODE of the instruction which states to "move a constant value to AX register", the hexadecimal representation (Using little Endian notation) of the instruction "Mov AX,336" ("150" in hexadecimal number system) will be:

- ▶ 0xBB0150
- ▶ 0x5001BB
- ▶ 0x01BB50

▶ **0xBB5001 (Page 19)**

Question No:87

one The maximum parameters a subroutine can receive (with the help of registers) are

- ▶ 6

▶ **7 (Page 72)**

- ▶ 8
- ▶ 9

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Question No:88

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

► **AX (Page 85)**

- BX
- CX
- DX

Question No:89

in Left-Shift-Operation the left most bit _____

► will drop

► **will go into CF (Page 52)**

- Will come to the right most
- will be always 1

Question No:90

Which of the following jumps makes intra segment control possible?

- Short
- **Far**
- Long
- Near

Question No:91

There is an auto –increment mode when the ----- is -----.

- CX, not set
- ZF, not set
- DF, set
- **DF, not set**

Question No:92

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REP allows the instruction to be ----- CX times.

- Reported
- Replaced
- **Repeated**
- repositioned

Question No:93

In ----- operation, a carry flag is inserted from the left moving every bit one position to its right. The right most bit is dropped into carry flag.

- **Rotate through carry (RCR)**
- Rotate Left (ROL)
- Rotate through carry left (RCL)
- Rotate Right(ROR)

Question No:94

ASCII stand for -----.

- American Standard Code for information interaction
- **American standard code for information interchange**

Question No:95

----- or ----- are taken if it last arithmetic operation has produced a number in its destination that has odd parity.

- JP, JPE
- JS, JNS
- JCX, JNS
- **JNP, JPO**

Question No:96

Which of the following string instruction is generally used in loop instead of REP prefix?

- SCAS
- **LDS**
- CMPS
- STOS

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Question No:97

mov, ax [num 1] is an example of ----- bit move.

- 8
- **16**
- 24
- 32

Question No:98

Which of the following used data segment by default?

- Base pointer
- **Base register**
- Stack pointer
- Instruction pointer

Question No:99

XOR can also be used a----- to invert selective bits.

- Destination operand
- Source operand
- **Masking operator**
- Masking bit

Question No:100

There are two----- from of MOVS instruction.

- 1
- **2**
- 3
- 4

Question No:101

Registers are stored cells-----.

- Outside the processor

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- Both outside and inside the processor
- **Inside the processor**
- Inside the memory

Question No:102

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

- AX
- **DX:AX**
- ES:AX
- DS:BX

Question No:103

Shifting the integer 5 left by 1 bit result in----

- 5
- **10**
- 25
- 50

Question No:104

In which of the following addressing both registers are not constant?

- Index +offset
- **Base+ Index**
- Base +offset
- Base+ offset+ index

Question No:105

----- Transfers the word are top of stack (pointed to by Sp) to the destination operand and increment SP by two the new top of stack.

- PUSH
- **POP**
- CALL
- RET n

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Question No:106

In ----- operation, the output is 1 only if both input are 1.

➤ **AND**

- OR
- NOT
- XOR

Question No:107

Which of the following is used for calculating the segment address of an interrupt of an service routine "n"?

➤ **$n*4+2$**

- $n*4-2$
- $n*4$
- $n*2+4$

Question No:108

Conditional jump can only be-----.

- Far
- **Short**
- Near
- long

Question No:109

Operand of POP is called ----- since data is moving from the stack to the operand.

- source
- **destination**
- increment
- decrement

Question No:110

How many are the functions of a register?

- 3
- **2**

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- 1
- 4

Question No:111

SACS compares a source in accumulator register with the ----- string element addressed by ES:DI and updates the flags.

- Source
- **destination**
- flags
- register

Question No:112

which of the following instruction is used for non- destructive AND operation?

- CMP
- NAND
- **TEST**
- ADC

Question No:113

Simple CMP instruction uses ----- operation.

- Addition
- Division
- **Subtraction**
- Multiplication

Question No:114

What does the given instruction do?

SHR DL, 1

- **Move right most bit in carry**
- Move bit in DL

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- Shift and store the One bit in DL
- Shift and store the most bit in DI

Question No:115

----- Subtracts one from the operand.

- MEC
- Modulus
- **DEC**
- Shift

Question No:116

Which of following is an illegal assembly instruction?

- mov{num1}, al
- mov ax, bx
- mov al, bl
- **mov { num1},{num2}**

Question No:117

In assembly language, the first executable instruction of the program should be placed at the offset_____.

- 0*1100
- 0*0010
- 0*0000
- **0*0100**

Question No:118

Cs and Is are the both _____bit register.

- **16**
- 4
- 8
- 32

Question No:119

Which of the following is a special instruction?

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➤ Add bx,0534

➤ **Cli**

➤ Mov ax,bx

➤ Cmp ax,0

Question No:120

Extended shifting algorithm consists of:

➤ 3 instructions

➤ 1 instructions

➤ **2 instructions**

➤ 4 instructions

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