CS401 COMPUTER ARCHITECTURE AND ASSEMBLY LANGUAGE PROGRAMMING MCQs

Question # 1 of 10 Total Marks: 1
When two devices in the system want to use the same IRQ line then what will happen?
Select correct option:

An IRQ Conflict
An IRQ Crash
An IRQ Collision
An IRQ Blockage

Question # 2 of 10 Total Marks: 1
Hard disk MBR(Master Boot Record) is of size_____.
Select correct option:

446 bytes
350 bytes
512 bytes
256 bytes

Question # 3 of 10 Total Marks: 1
Which of the following IRQs is connected to serial port COM 2?
Select correct option:

IRQ 0
IRQ 1
IRQ 2
IRQ 3

Question # 4 of 10 Total Marks: 1
The first sector on hard disk contains the
Select correct option:

Hard disk size
Partition table
Data size
Sector size

Question # 5 of 10 Total Marks: 1
In programmable interrupt controller which of the following ports is referred as a control port?
Select correct option:

19
20
21
22

Question # 6 of 10 Total Marks: 1
Which of the following IRQs is used by the parallel port?
Select correct option:

IRQ 4
IRQ 5
IRQ 6

IRQ 7

Question # 7 of 10 Total Marks: 1
The programmable interval timer (PIT) has input frequency of
Select correct option:
1.193MHZ
2.193MHZ
3.193MHZ
4.193MHZ

Question # 8 of 10 Total Marks: 1
CX register mostly use a
Select correct option:
Counter register
Flag register
Base register
Desination register

Question # 9 of 10 Total Marks: 1
The input frequency of the programmable interval timer (PIT) is
Select correct option:
Fixed
Depends on processor clock
Variable
Depends on hardware attached

Question # 10 of 10 Total Marks: 1
The thread registration code initializes the PCB and adds it to the linked list so that the _____ will give it a turn.
Select correct option:
Assembler
Scheduler
Linker
Debugger

Question # 1 of 10 Total Marks: 1
INT13 --BIOS disk services" generally uses which register to return the 'error code' ?
Select correct option:
CF
DL
AH
AL

Question # 2 of 10 Total Marks: 1
Operating system Organize data in the form of
Select correct option:
Folder
Batch file
File
None of the above

Question # 3 of 10 Total Marks: 1

___ 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.
Select correct option:

PUSH
POP
CALL
MOV

Question # 4 of 10 Total Marks: 1
Which of the following interrupts is Non maskable interrupt?
Select correct option:

INT 0
INT I
INT 2
INT 3

Question # 5 of 10 Total Marks: 1
The maximum parameters a subroutine can receive are_____ when all the general registers are used.
Select correct option:

6
7
5
4

Question # 6 of 10 Total Marks: 1
When the operand of DIV instruction is of 16-bits then implied dividend will be stored in_____
Select correct option:

AX register
The concatenation of DX and AX
The concatenation of ES and AX
The concatenation of DS and BX

Question # 7 of 10 Total Marks: 1
COM2 is connected with
Select correct option:

IRQ 2
IRQ **3**
IRQ 4
IRQ 5

Question # 8 of 10 Total Marks: 1
The parallel port connector is called?
Select correct option:

BD-24
BD-25
DB-25
DB-24

Question # 9 of 10 Total Marks: 1
The instruction to call any software interrupt is
Select correct option:

GO INT interrupt_number
Call interrupt_number
INT interrupt_number
Call INT interrupt_number

Question # 10 of 10 Total Marks: 1
The INT 0x13 service 0x03 is use to
Select correct option:
Get drive parameter
Reset disk sector
Write disk sector
Read disk sector

Question # 1 of 10 Total Marks: 1
Data bus is
Select correct option:
Uni-directional
Bi-directional
Non-directional
None of the given

Question # 2 of 10 Total Marks: 1
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.
Select correct option:
True
False

Question # 3 of 10 Total Marks: 1
Peripheral address space is selected when which of the following instructions is given to the processor?
Select correct option:
MOV
DEC
IN
ADD

Question # 4 of 10 Total Marks: 1
Creation of threads can be
Select correct option:
Static
Dynamic
Both
None of the above

Question # 5 of 10 Total Marks: 1
Which of the following IRQs is used by the parallel port?
Select correct option:
IRQ 4
5
6
7

Question # 6 of 10 Total Marks: 1
Priority of IRQ 0 interrupt is
Select correct option:

Highest
low
medium
None of the above

Question # 7 of 10 Total Marks: 1
The number of pins in a parallel port connector are?
Select correct option:

20
25
30
35

Question # 8 of 10 Total Marks: 1
The interrupt call loads new values in CS, IP and
Select correct option:

DS
SS
FLAG
Bookmark

Question # 9 of 10 Total Marks: 1
All the registers and stacks are saved in
Select correct option:

Multitasking
Multi Processing
Function Call
BIOS

Question # 10 of 10 Total Marks: 1
In 9 pin DB connector ,which pin is assigned to TD.
Select correct option:

1
2
3
4

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 source 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

Question No: 1 (Marks: 1) - Please choose one
To transfer control back the RET instruction take

- **1 argument**
- 1 argument
- 3 arguments
- No arguments

Question No: 2 (Marks: 1) - Please choose one
In STOSB instruction SI is decremented or incremented by

4
1
2
3

Question No: 3 (Marks: 1) - Please choose one
CMPS instruction subtracts the source location _____from the destination location.

DS:SI
DS:DI
ES:SI
ES:DI

Question No: 4 (Marks: 1) - Please choose one
Regarding assembler, which statement is true:

Assembler converts mnemonics to the corresponding OPCODE
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: 5 (Marks: 1) - Please choose one
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

Question No: 6 (Marks: 1) - Please choose one
In the instruction MOV AX, 5 the number of operands are

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

Question No: 7 (Marks: 1) - Please choose one
The maximum parameters a subroutine can receive (with the help of registers) are

- 6
- **7**
- 8
- 9

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 iAPX 8 8 return a number called _ _ _ _ _ _ _ _ _ _ _ _ _ _ address .

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

Question No: 10 (Marks: 1) - Please choose one
When a 16 bit number is divided by an 8 bit number, the dividend will be in

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

Question No: 11 (Marks: 1) - Please choose one
in Left-Shift-Operation the left most bit _____

- **will drop**
- will go into CF
- Will come to the right most
- will be always 1

Question No: 12 (Marks: 1) - Please choose one
Suppose the decimal number "35" after shifting its binary two bits to left, the new value becomes _____

- 35
- 70
- **140**
- 17

Question No: 13 (Marks: 1) - Please choose one
When divide overflow occurs processor will be interrupted this type of interrupt is called

- Hardware interrupt
- Software interrupt
- **Processor exception**
- Logical interrupts

Question No: 14 (Marks: 1) - Please choose one
Which mathematical operation is dominant during the execution of SCAS instruction

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

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

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

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

_____ is one of the reasons due to which string instructions are used in 8088

- Efficiency and accuracy
- Reduction in code size and accuracy
- **Reduction in code size and speed**
- Reduction in code size and efficiency

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

The physical address of the stack is obtained by

- ► 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 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

- ► 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

- ► 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**
- ► Scan
- ► Sort
- ► Move data

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

Index registers are used to store _____

- ► Data

- ► Intermediate result
- ► **Address**
- ► Both data and addresses

Question No: 7 (Marks: 1) - Please choose one
The bits of the _____ work independently and individually
- ► 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**
- ► 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
- ► 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
- ► AX
- ► **AL**
- ► AH
- ► DX

Question No: 11 (Marks: 1) - Please choose one
Which mathematical operation is dominant during the execution of SCAS instruction
- ► 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
- ► 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
- ► 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

► 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)

► 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**
► 4
► 5
► 6

Q=1:
Which bit of attributes byte represents the blue component of foreground color?

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

Q=2:
The clear screen operation initializes the whole block of video memory to:

- 0417
- 0714
- 0741
- **0720**

Q=3:
When the operand of DIV instruction is of 16 bit then implied dividend will be of

- 64-bit
- **32-bits**
- 16-bits
- 8--bits

Q=4
Which of the following is the pair of register used to access memory in string instruction:

- DI and BP
- SI and BP
- **DI and SI**
- DS and Si

Q=5
A fat32 file system directory entry in DOS consist of how many bytes?

- 16
- 24
- **32**
- 64

Q=6:
Which register is generally used to specify the services number of an interrupt?

DX
AX
BX
CX
……

Q=7:
In 9 pin db 9 connector ,which pin is assigned to RD(received data)

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

Q=8
In case of COM file, maximum length of parameters passed through command line can be…….

- 63 bytes
- 127bytes
- 255 bytes
- 511 bytes

Q=9
We can access the DOS service using;

- **Int 0x21**
- Int 0x13
- Int 0x 10
- Int 0x 08

Q=10
In 9 pin 9 connector,which pin is assigned to signal ground

- 3
- 4
- **5**
- 6

Q=11:
BPB stands for

- Basic parameter block
- Bios precise block
- Basic precise block
- **Bios parameter block**

Q=12
Int 13-bios disk service “generally uses which register to return the error flag?

- CF
- DL
- **AH**
- AL

Q=13:
The first sector on the hard disk contains the

- Hard disk size
- **Partition table**
- Data size
- Sector size

Q=14
Operating system organize data in the form of

- Folder
- Batch file
- **File**
- None of above

……
Q=15
In 9 pin db 9 connector, which pin is assigned to TD(transmitted data)

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

Q=16”
Device derive can be divided into ----------major categories.

- 5
- 4
- 3
- 2

1. BL contains 5 decimal then after right shift , BL will become

- 3
- **2.5**
- 5
- 10

2. 8 * 16 font is stored in _____ bytes.

- 3

- 4
- 8
- **16**

3. In DOS input buffer , number of characters actually read on return is stored in

- First byte
- ***Second byte***
- Third byte
- Fourth byte

4. IRQ 0 has priority

- Low
- High
- ***Highest***
- Medium

5. Thread registration code initialize PCB and add to linked list so that _____ will give it turn.

- Assembler
- Linker
- ***Scheduler***
- Debugger

6. Traditional calling conventions are in _____ number

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

7. VESA VEB 2.0 is standard for

- ***High Resolution Mode***
- Low Resolution Mode
- Very High Resolution Mode
- Medium Resolution Mode

8. To clear direction flag which instruction is used

- ***Cld***
- Clrd
- Cl df
- Clr df

9. In STOSW instruction , When DI is cleared , SI is

- Incremented by 1
- ***Incremented by 2***
- Decremented by 1
- Decremented by 2

10. Interrupt that is used in debugging with help of trap flag is

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

11. INT for arithmetic overflow is

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

12. IRQ referred as

- ***Eight Input signals***
- One Input signal
- Eight Output signals
- One output signal

13. IRQ for keyboard is ____***1***_____

14. IRQ for sound card is _____***5***_____

15. IRQ for floppy disk is _____***6***_____

16. IRQ with highest priority is

- Keyboard IRQ
- ***Timer IRQ***
- Sound Card
- Floppy Disk

17. Pin for parallel port ground is

- 10-18
- ***18-25***
- 25-32
- 32-39

18. The physical address of Interrupt Descriptor Table (IDT) is stored in

- GDTR
- ***IDTR***
- IVT
- IDTT

19. Execution of "RET 2" results in?

20. CX register is

- ***Count register***
- Data register
- Index register
- Base register

21. OUT instruction uses __AX____ as source register.

22. IN DB-9 connector the Data Set ready pin is at

- 5
- ***6***
- 7
- 8

23. If two devices uses same IRQ then there is

- IRQ collision
- ***IRQ conflict***
- IRQ drop

24. VESA organizes 16 bit color for every pixel in ratio

- 5:5:5
- ***5:6:5***
- 6:5:6
- 5:6:7

25. Division by zero is done by which interrupt.

Interrupt 0.

……

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: 1 ___(Marks: 1) - Please choose one
Which of the following is not true about registers?

- Their operation is very much like memory
- Intermediate results may also be stored in registers.
- They are also called scratch pad ram
- **None of given options.**

Question No: 2 ___(Marks: 1) - Please choose one
move [bp], al moves the one byte content of the AL register to the address contained in BP register in the current

- Stack segment
- **Code segment**
- Data segment
- Extra segment

Question No: 3 (Marks: 1) - Please choose one
In a rotate through carry right (RCR) instruction applied on a 16 bit word
Effectively there is

- 16 bits rotation
- 1 bit rotation
- 17 bits rotation
- 8 bits rotation

Question No: 4__ (Marks: 1) - Please
choose one The 8088 stack works on
- **Word sized elements**
- Byte sized elements
- Double sized element
- Nible sized element

Question No: 5 (Marks: 1) - Please
choose one
An 8 x 16 font is stored in……..Bytes

- 2
- 4
- 8
- **16**

Question No: 6 (Marks: 1) - Please

INT 10 is used for……services.
- RAM
- Disk
- **BIOS video**
- DOS video

Question No: 7 __ (Marks: 1) - Please choose one
Priority of IRQ 0 interrupt is
- medium
- high
- **highest**
- low

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

Threads can have function calls, parameters and _____variables.

- global
- **local**
- legal
- illegal

Question No: 9 __ (Marks: 1) - Please choose
one How many prevalent calling conventions do…….exist

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

VERY IMPORTANT

Question No: 10 (Marks: 1) - Please choose
one In 9pin DB 9 DSR is assigned on pin number

- 4
- 5
- **6**
- 7

Question No: 11
(Marks: 1) - Please
choose one In 9pin DB 9 CTS is assigned on pin
number

- 6
- 7
- **8**
- 9

Question No: 12__ (Marks: 1) - Please choose one
In 9pin DB 9 CD is assigned on pin number

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

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

In 9pin DB 9 RD is assigned on pin number

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

Question No: 14 __ (Marks: 1) - Please choose one
in device attribute word which of the following bit decides whether it is a cha rater

- device or a block device
- Bit 12 Bit 13
- Bit 14
- **Bit 15**

Question No: 15__ (Marks: 1) - Please choose one
Video services are classified into _____broad categories
- **2**
- 3
- 4
- 5

Question No: 16 (Marks: 1) - Please choose
one In STOSB instruction, when DF is clear, SI
is
- **Incremented by 1**
- Incremented by 2
- Decremented by 1
- Decremented by 2

Question No: 17 (Marks: 1) - Please choose one The
process of sending signals back and forth is called

- Activity
- Hand-shaking
- **Interruption**
- Time clicking

Question No: 18 (Marks: 1) - Please choose one
which of the following is a special type of interrupt that returns to the
same instruction instead of the next instruction

- **Divide overflow interrupt**
- Debug interrupt
- Arithmetic overflow interrupt
- Change of sign interrupt

Question No: 19 ___(Marks: 1) - Please choose one
Which of the following IRQs is derived by a timer device?
- **IRQ 0**
- IRQ 1
- IRQ 2
- IRQ 3

Question No: 20 __ (Marks: 1) - Please choose one
Which of the following interrupts is used for Arithmetic overflow
- INT 1
- INT 2
- INT 3

- **INT 4**

Question No: 21 __ (Marks: 1) - Please choose one
Which of the following IRQs is connected to serial port COM 2?

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

Question No: 22 __ (Marks: 1) - Please
choose one
An End of Interrupt (EOI) signal is sent by

- **Handler**
- Processor
- IRQ
- PIC

Question No: 23 __ (Marks: 1) - Please choose one
The source registers in OUT is

- **AL or AX**
- BL or BX
- CL or CX
- DL or DX

Question No: 24 (Marks: 1) - Please choose one

In programmable interrupt controller which of the following ports is used for selectively enabling or disabling interrupts

- 19
- 20
- **21**
- 22

Question No: 25 (Marks: 1) - Please choose one
The number of pins in a parallel port connector
are?

- 25
- 30
- 35
- 45

Question No: 26 (Marks: 1) - Please choose one
Which of the following pins of a parallel port connector are grounded?

- 10-18
- 18-25
- 25-32
- 32-39

Question No: 27 __ (Marks: 1) - Please choose one
Suppose a decimal number 35 when its binary is shifted to write two places the

new number will become

- 35
- 70
- 140
- 17

Question No: 28 __ (Marks: 1) - Please choose one

A 32bit address register can access upto .....of memory so memory access has increased a lot.

- 2GB
- 4GB
- 6GB
- 8GB

Question No: 29 __ (Marks: 1) - Please choose one

In NASM an imported symbol is declared with the .....while and exported symbol is declared with the .....

- Global directive, External directive
- External directive, Global directive
- Home Directive, Foreign Directive
- Foreign Directive, Home Directive

Question No: 30 (Marks: 1) - Please choose

one Single step interrupt is

Question No: 1 (Marks: 1)

- Please choose one

Sun SPARC Processor has a fixed _____ instruction size.

- 16bit
- **32bit**
- 64bit
- 20bit

Question No: 2 (Marks: 1)

- Please choose one

When the subprogram finishes, the _____ retrieves the return address from the stack and transfers control to that location.

- **RET instruction**
- CALL instruction
- POP instruction
- Jump instruction

Question No: 3 (Marks: 1)

- Please choose one
A 32 bit address register can access upto _____ of memory.

- 1 GB
- 6 GB
- **4 GB**
- 2 GB

Question No: 4 (Marks: 1)
- Please choose one
The value of a segment register when the processor is running under protected mode is called

- **segment descriptor**
- segment selector
- global descriptor table
- protected register

Question No: 5 (Marks: 1)
- Please choose one
FS and GS are two _____ in protected mode.

- **segment registers**
- segment selectors
- stack pointers
- register pointers

Question No: 6 (Marks: 1)
- Please choose one
IRQ 0 interrupt have _____ priority

- low
- medium
- **highest**
- lowest

Question No: 7 (Marks: 1)
- Please choose one
IDT stands for _____.

- interrupt descriptor table
- individual descriptor table
- inline data table
- **interrupt descriptor table**

Question No: 8 (Marks: 1)
- Please choose one
Every bit of line status in serial port conveys _____ information.

- **different**
- same
- partial
- full

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

There are total _____ bytes in a standard floppy disk.

- 1444k
- **1440k**
- 1280k
- 2480k

Question No: 10 (Marks: 1)
- Please choose one
An 8x16 font is stored in _____ bytes.

- 8
- **16**
- 4
- 20

==========

. Serial Port is also accessible via ***I/O*** ports **, COM 1** is accessible via ports 3F8-3FF while ***COM 2*** is accessible via 2F8 -2FF.

The first register at 3F8 is the ***Transmitter*** holding register if written to and the receiver ***buffer*** register if read from.

Other register of our interest include 3F9 whose ***Bit 0*** must be set to enable received data available interrupt and ***Bit 1*** must be set to enable transmitter holding register empty interrupt.
(Transmitter, COM 1, I/O ports , COM2. bit 0 , Buffer , 3FA)
==========

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..**

Question # 2
The address bus is unidirectional and address always travels from processor to memory.
1**) : TRUE**
2) : FALSE

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
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 # 15
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 # 16
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 # 17
_____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 # 18
"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 # 19
There are _____ types of "instruction groups"
1) : **4**
2) : 5
3) : 3
4) : 2
Correct Option : 1 From : Lecture 2

Question # 20
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 # 21
"mov" instruction is related to the _____ *****.
1) : Arithmetic and Logic Instructions
2) : **Data Movement Instructions**
3) : Program Control Instructions
4) : Special Instructions
Correct Option : 2 From : Lecture 2

Question # 22
_____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 # 23
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 # 24
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 # 25
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 # 26
The iAPX88 architecture consists of_____registers.
1) : 13
2) : 12
3) : 9
4) : 14
Correct Option : 4 From : Lecture 3

Question # 27
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 # 28
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 # 29
AX is General purpose Register where A stands for_____.
1) : Acadmic
2) : Ado
3) : Architecture

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

Question # 30
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 # 31
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 # 32
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 # 33
_____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 # 34
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 # 35
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 # 36
_____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 # 37
_____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 # 38
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 # 39
Program is an ordered set of instructions for the processor.
1) : **TRUE**
2) : FALSE
3) :
4) :
Correct Option : 1 From : Lecture 3

Question # 40
For Intel Architecture "operation destination, source" is way of writing things.
1) : **TRUE**
2) : FALSE
3) :
4) :
Correct Option : 1 From : Lecture 3

Question # 41
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 # 42
The maximum memory iAPX88 can access is_____.

1) **: 1MB**
2) : 2MB
3) : 3MB
4) : 128MB
Correct Option : 1 From : Lecture 4

Question # 43
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 # 44
_____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 # 45
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 # 46
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 # 47
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 # 48
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 # 49
“db num1” size of the memory is _____
1) : **1byte**
2) : 4bit
3) : 16bit
4) : 2byte
Correct Option : 1 From : Lecture 5

Question # 50
“ 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 # 51
In “ mov ax, bx ” is _____ Addressing Modes.
1) : Immediate
2) : Indirect
3) : Direct
4) : **Register**
Correct Option : 4 From : Lecture 5

Question # 52
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 # 53
In “mov ax, 5 ” is _____ Addressing Modes
1) **: Immediate**
2) : Indirect
3) : Indirect

4) : Register
Correct Option : 1 From : Lecture 6

Question # 54
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 # 55
"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 # 56
"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 # 57
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 # 58
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 # 59
In " mov [1234], al " is _____ Addressing Modes.
1) : Immediate
2) : Indirect
3) **: Direct**
4) : Register
Correct Option : 3 From : Lecture 8

Question # 60
In " mov [SI], AX " is _____ Addressing Modes.
1) : Basef Register Indirect
2) : Indirect
3) : **Indexed Register Indirect**
4) : Immediate
Correct Option : 3 From : Lecture 8

Question # 61
In " mov ax, [bx - Si] " is _____ ADDRESSING
1) : Basef Register Indirect
2) : Indirect
3) : Direct
4) : **illegal**
Correct Option : 4 From : Lecture 8

Question # 62
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 # 63
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 # 64
In JNE and JNZ there is difference for only _____;
1) : **Programmer or Logic**
2) : Assembler
3) : Debugger
4) : IAPX88
Correct Option : 1 From : Lecture 9

Question # 65
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 # 66
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 # 67
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 # 68
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 # 69
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 # 70
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 # 71
_____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 # 72
_____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
Question # 73
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 # 74
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 # 75
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

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

1)))SHR and SAL are same?
.True (correct)
.False
2)))mov ax,0 will set ZF flag
.True
.False
3)))In 9 pin DB connector ,which pic is assigned to TD.
. 1
. 2
. 3(correct)
. 4
4)))Lower 16 bits of EAX are labeled as
. AX(correct)
. BX
.EAX
.none of above
5))) which is the special prefix used for repeating a block
.rep(correct)
.repeat
.repb
.repe
6)) JA can not after cmp if unsigned destinition is greater than source
.true
.false

Q=1
Conditional jump can only:

1. Far
2. **short**
3. near
4. all of the given

q=2:
Address is always go from:
1. Processor to memory
2. **Memory to processor**
3. Memory to memory
4. None of given

Q=3;
Programmable interrupt controllers have two ports 20 and 21……port 20 is a control port while port 21 is ……..
1. The interrupt make register
2. **Interrupt port**
3. Output port
4. Input port

Q=4:

In the instruction “move word[es:160],0x1230 represent the charechter……

1. A
2. B
3. **0**
4. 1

Q=5:

The 8088 processor divides interrupts into how many classes?

1. **2**
2. 3
3. 4
4. 5

Q=6:

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

1. DI and BP
2. SI and BP
3. **DI and SI**
4. DS and SI

Q=7:

In case of COM file,first command line parameter is stored at ……..offset of program segment prefix’

1. **0x80**
2. 0x82
3. 0x84
4. 0x86

Q=8:

The INT 0x13 service 0x03 is use to …

1. Read disk sector
2. **Write disk sector**
3. Reset disk sector
4. Get drive parameters

Q=9:

After the execution of STOSWB,the CX wil be……..

1. Incremented by 1
2. **Incremented by 2**
3. Decremented by 1
4. Decremented by 2

Q=10

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

1. **First column of second row**
2. Second column of first row
3. Second column of second row
4. First column of third row

Question No: 17 (Marks: 1)
Write any two control instructions.

Question No: 18 (Marks: 1)
RET instruction take how many arguments

Question No: 19 (Marks: 2)

Explain the fuction of rotate right (ROR) instruction

Question No: 20 (Marks: 2)
Describe the PUSH function

Question No: 21 (Marks: 3)

Write down the names of four segment registers?

Question No: 22 (Marks: 3)

For what purpose "INT 4" is reserved?

Question No: 23 (Marks: 5)
Given that [BX+0x0100] BX=0x0100
=0xFFF0
Calculate the physical address

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?

An implied operand means that it is always in a particular register say the accumulator. It needs to not be mentioned in the instruction.

Question No: 31 __ (Marks: 1)
Which services are gained bi INT 0x16

Solution:
BIOS KEY BOARD SRVICES

Question No: 32 (Marks: 1

Give the name of any one VESA servic

Question No: 33 (Marks: 2)
INT 14 - SERIAL - READ CHARACTER FROM PORT
By using above port what do AH,AL and DX shows here?

Question No: 34 (Marks: 2)
What do these instructions do ? write your answer in single line.
mov cx, 0xffff
loop $

Question No: 35 (Marks: 3)
Define the protected mode
Solution:

Question No: 36 (Marks: 3)
Write a program in assembly language to disable keyboard interrupt using PIC mask register
Hint: Only five instructions are needed
Solution:

Question No: 37 (Marks: 3)
Read the following passage carefully and fill the blanks with proper words.
Note: Don't rewrite the passage just write the words in same order.
"BIOS sees the disks as a combination of sectors, tracks, and....., as a raw storage device without concern to whether it is reading a file or directory. ..... provides the simplest and most powerful interface to the storage medium. However this raw storage is meaningless to the user who needs to store his files and organize them into..... . "
