



## KTMT - Kiến trúc máy tính nè

Kiến trúc máy tính \_ hợp ngữ (Trường Đại học Sư phạm Kỹ Thuật Thành phố Hồ Chí Minh)



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# Nhóm 06-07-08CLC - Kiến trúc máy tính và hợp ngữ

**Started on** Tuesday, 14 March 2017, 10:46 AM

**State** Finished

**Completed on** Tuesday, 14 March 2017, 11:25 AM

**Time taken** 38 mins 36 secs

## Question 1

Complete

Marked out of 1.20

What is the correct sequence of instruction cycle?

Step 5 Calculate operand address ▼

Step 2 Decode ▼

Step 4 Execution ▼

Step 3 Fetch operand ▼

Step 1 Fetch opcode ▼

Step 6 Store result ▼

Your answer is partially correct.  
You have correctly selected 3.

## Question 2

Complete

Marked out of 1.00

Which one best describe cache hit and cache miss?

Cache miss ratio the number of memory accesses that CPU must retrieve from the main memory per the total number of memory accesses ▼

Cache hit ratio the number of memory accesses that the CPU can retrieve from the cache per the total number of memory accesses ▼

Your answer is correct.

## Question 3

Complete

Marked out of 1.00

For cache write policies, which are often used for write-hit and write-miss

Write-hit Write-back ▼

Write-miss Write-allocate ▼

Your answer is correct.

## Question 4

Complete

Marked out of 1.00

Choose correct features for SRAM and DRAM

DRAM Slower access time, cheaper cost per bit, can manufacture with larger size ▼

SRAM Faster access time, cost more per bit, smaller size ▼

Your answer is correct.

**Question 5**

Complete

Marked out of  
1.00

Identify the correct sequence to update a page onto a flash memory?

- Step 3 the entire block is being read from flash into RAM then request data in page is update ▼
- Step 1 the entire block of flash memory are erased ▼
- Step 2 The entire block from RAM then is written back to the flash memory ▼

Your answer is incorrect.

**Question 6**

Complete

Marked out of  
1.00

Choose correct set of registers for x86 processor

- Data pointer to source memory in extra segment ES: SI ▼
- Pointer to variable in stack SS: BP ▼
- Instruction pointer CS: IP ▼
- Data pointer in data segment DS: BX ▼

Your answer is correct.

**Question 7**

Complete

Marked out of  
1.00

Match the definition of flag bits in PSW

- contains the carry of 0 or 1 from the leftmost bit after an arithmetic operation CF ▼
- determine the direction for moving or comparing data between memory areas DF ▼
- determine whether an external interrupts are to be ignored or processed IF ▼
- the processor switches to single-step mode TF ▼

Your answer is correct.

**Question 8**

Complete

Marked out of  
1.00

What are components of Von Neumann, namely IAS computer?

Select one or more:

- ☐ Monitor
- ☒ Memory
- ☐ Punched card reader
- ☒ CPU
- ☒ Bus
- ☒ I/O Equipments

Your answer is correct.

**Question 9**

Complete

Marked out of  
1.00

Which is not correct about MOORE law?

Select one or more:

- ☐ The number of transistors that could be put on a single chip was doubling every year
- ☒ The number of transistors that could be put on a single chip was triple every year nowadays.
- ☒ Likely triple after 2000
- ☐ The number of transistors that could be put on a single chip was doubling every year except 1970s

Your answer is correct.

**Question 10**

Complete

Marked out of  
1.00

For better speed, in CPU design, engineers make use of the following techniques:

Select one or more:

- ☒ Branch prediction
- ☒ Pipelining
- ☒ Speculative execution
- ☐ Faster CPU internal bus

Your answer is correct.

**Question 11**

Complete

Marked out of  
1.00

To balance the super speed of CPU with the slow response of memory, which of the following measures have been made by engineers in system design?

Select one or more:

- ☐ To move data directly by DMA
- ☒ Make wider data bus path
- ☒ Make use of both on-chip and off-chip cache memory
- ☒ Using higher-speed bus and bus hierarchy

Your answer is correct.

**Question 12**

Complete

Marked out of  
1.00

What is the meaning of Amdahl's law in processor performance evaluation?

Select one:

- ☐ the cost reduce when moving from single-core to multicore processor
- ☒ the potential speedup of a program using multiple processor compared to a single processor
- ☐ the speedup of a multicore processor when increasing system bus speed
- ☐ the maximum speedup of a multicore processor

Your answer is correct.

**Question 13**

Complete

Marked out of  
1.00

What are the processor's instruction categories

Select one or more:

- ☒ Data processing
- ☒ Control
- ☐ Processor - Cache memory
- ☒ Processor - I/O
- ☒ Processor - Memory
- ☐ Memory - Memory (DMA)

Your answer is correct.

**Question 14**

Complete

Marked out of  
1.00

In computer, how does the processor serve multiple interrupt request from devices?

Select one:

- ☐ The processor can not process multiple interrupt requests
- ☒ Each device are assigned an interrupt priority, the device with higher priority will be served.
- ☐ Device with higher priority will use interrupt enable flag
- ☐ Each device are assigned an interrupt priority, the device with lower priority will be served.

Your answer is incorrect.

**Question 15**

Complete

Marked out of  
1.00

Bus is a shared transmission medium, multiple devices connect to it but only one at a time can successfully transmit. Which component in computer facilitates this operation?

Select one:

- ☒ Bus Arbiter
- ☐ Programmed I/O
- ☐ Direct Memory Access (DMA)
- ☐ Bus master

Your answer is correct.

**Question 16**

Complete

Marked out of  
1.00

When many devices of different transmission speed connect to the same bus, the overall system performance suffers. How did the design engineers resolved this:

Select one:

- ☐ PCI Express bus
- ☐ PCI bus
- ☐ Split system bus into local bus and memory bus
- ☒ Multiple-Bus hierarchies

Your answer is correct.

**Question 17**

Complete

Marked out of  
3.00

What are the features of direct-mapping cache organization?

Select one or more:

- ☒ Thrash --> low hit ratio
- ☐ faster
- ☒ Simple and inexpensive
- ☐ small cache memory

Your answer is correct.

**Question 18**

Complete

Marked out of  
1.00

Which ones are not correct for static RAM?

Select one or more:

- ☐ Cost per bit is higher than dynamic RAM
- ☐ faster than dynamic RAM because they are made from capacitor
- ☒ Cheaper than dynamic RAM because simpler chip controller
- ☒ Cost per bit is lower than dynamic RAM

Your answer is partially correct.

You have correctly selected 2.

**Question 19**

Complete

Marked out of  
1.00

Which one is not correct?

Select one or more:

- ☒ EEPROM is erasable by exposing under UV
- ☐ PROM is non-volatile memory
- ☒ EPROM is erasable electrically
- ☒ Flash memory can only be erased electrically byte by byte

Your answer is correct.

**Question 20**

Complete

Marked out of  
1.00

Which statements are correct for HDDs?

Select one or more:

- ☒ a. Bits are stored on tracks
- ☒ b. Head, Track, Sector are key parameters for access data on hard disk
- ☐ c. Bits are store randomly on disk surfaces
- ☐ d. Head, Track, Cylinder are key parameters for access data on hard disk

Your answer is correct.

**Question 21**

Complete

Marked out of  
1.00

What is correct about the function of TRIM command in SSD?

Select one:

- ☐ Allow SSD to allocate memory pages in blocks properly for faster access
- ☐ Allow SSD to defragment scattered data stored in separate pages
- ☒ Allow OS to notify SSD the presence of occupied blocks of data which are no longer in use and can be erased internally
- ☐ Allow SSD to manage occupied pages and remove them automatically for later use

Your answer is correct.

**Question 22**

Complete

Marked out of  
1.00

Which set of registers are valid for addressing a memory location?

Select one or more:

- ☒ DS:SI
- ☒ DS:BX
- ☐ SS:DI
- ☒ CS:IP

Your answer is correct.

**Question 23**

Complete

Marked out of  
1.00

Which are valid based index addressing?

Select one or more:

- ☒ [BX+SI]
- ☐ [SP+DI]
- ☐ [DX+SI]
- ☒ [BX+DI]

Your answer is correct.

**Question 24**

Complete

Marked out of  
1.00

Which are valid index addressing?

Select one or more:

- ☒ [SI]
- ☐ [DX]
- ☐ [BX]
- ☐ [BP]

Your answer is partially correct.  
You have correctly selected 1.

**Question 25**

Complete

Marked out of 1.00

8088 is 16 bit processor, the maximum addressable memory is:

Select one:

- ☐ 64M
- ☒ 1024K
- ☐ 640K
- ☐ 640M

Your answer is correct.

**Question 26**

Complete

Marked out of 1.00

Which are correct about the data registers of IA-32 processors:

Select one or more:

- ☒ Lower halves of the 16-registers can be used as 8-bit data registers: AH,AL,BH,BL,CH,CL,DH,DL
- ☒ complete 32-bit registers: EAX, EBX, ECX, EDX
- ☒ Lower halves of the 32-registers can be used as 4 16-bit data registers: AX,BX,CX,DX
- ☐ Higher halves of the 32-bit registers can be used as 16-bit registers: EAH,EAL,EBH,EBL,ECH,ECL,EDH,EDL

Your answer is correct.

**Question 27**

Complete

Marked out of 1.50

Which are correct about 32 bit index registers of IA-32 processors:

Select one or more:

- ☒ EDI: 32 bit pointer to destination memory in data movement instructions
- ☐ ESH,EDH: 16 bit pointers to higher memory above 1M
- ☒ DI: 16 bit pointer to destination memory in data movement instructions
- ☒ SI: 16 bit pointer to source memory in data movement instructions
- ☒ ESI: 32 bit pointer to source memory in data movement instructions

Your answer is correct.

**Question 28**

Complete

Marked out of 1.00

Which statement is correct about interrupt vector table?

Select one or more:

- ☐ Store in the ending area of 1024K of the main memory
- ☒ Take up 1024 bytes in the main memory
- ☐ Store on disk
- ☒ Store in the beginning area of the main memory

Your answer is correct.

**Question 29**

Complete

Marked out of 1.00

Part of memory as shown in figure

Address	1D48	1D49	1D4A	1D4B	1D4C	1D4D	1D4E	1D4F
Value	03	7F	F5	2D	5A	12	7B	C0

The value of DX register follows the execution of MOV DX, [1D4D] is 127B. What is the endian type of this computer system

Select one:

- ☐ little-endian
- ☐ level-endian
- ☒ big-endian
- ☐ non-endian

Your answer is correct.

**Question 30**

Complete

Marked out of  
1.00

Part of memory as shown in figure

Address	1D48	1D49	1D4A	1D4B	1D4C	1D4D	1D4E	1D4F
Value	03	7F	F5	2D	5A	12	7B	C0

The value of BX register follows the execution of MOV BX, [1D49] is F57F. What is the endian type of this computer system

Select one:

- ☐ level-endian
- ☐ big-endian
- ☒ little-endian
- ☐ non-endian

Your answer is correct.

**Question 31**

Complete

Marked out of  
0.50

The value in CS is 1FD0h what is the location of next instruction from 00000h if Instruction pointer is 3CD4h

Answer: 3CD5H

**Question 32**

Complete

Marked out of  
1.00

Select correct items to describe best about CISC

- Number of clocks per instruction multi-clock ▼
- code size of program small code size ▼
- Assembly code simpler ▼
- Instruction set Complex ▼
- Bytes per instruction different for variety of instructions ▼

Your answer is correct.

**Question 33**

Complete

Marked out of  
1.00

What best describe the Spatial and Temporal Locality?

- Temporal locality be exploited by keeping recently used instruction and data in cache memory and by exploiting a cache hierarchy ▼
- Spatial locality be exploited by using larger cache blocks and by incorporating prefetching mechanisms into the cache control logic ▼

Your answer is correct.

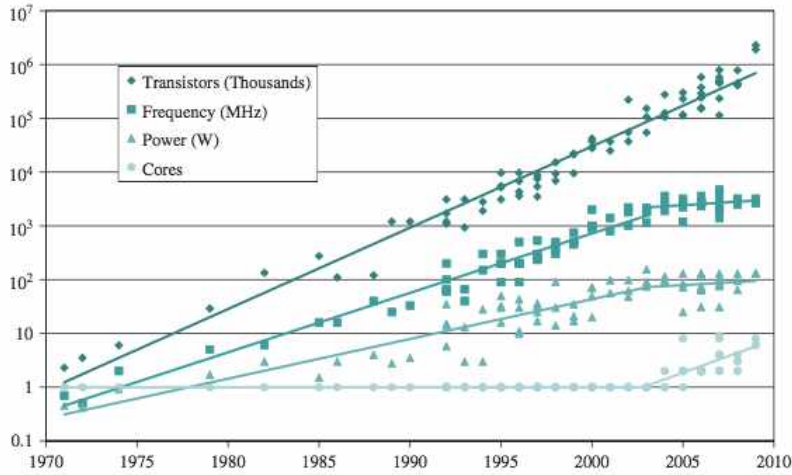


**Question 34**

Complete

Marked out of  
1.00

What can be concluded from the following chart of processor trends:



Select one:

- ☒ The multi-core processors and level off clock speed help to make heat dissipation of CPU chip less
- ☐ The number of transistors in chips produce more heat dissipation
- ☐ Heat dissipation in processor chip is increasing year after year since 1970
- ☐ The processor speed keeps increasing after 2003

Your answer is correct.

**Question 35**

Complete

Marked out of  
1.00

To evaluate processor performance, the following indicators and formulas are used:

Cycles per instruction 
$$CPI = \frac{\sum_{i=1}^n (CPI_i \times I_i)}{I_c}$$

Time to execute a program 
$$T = I_c \times CPI \times \tau$$

Or 
$$T = I_c \times [p + (m \times k)] \times \tau$$

In which:

p: the number of processor cycles needed to decode and execute the instruction

m: the number of memory references needed

k: the ratio between memory cycle time and processor cycle time

 $\tau$ : cycle time =  $1/f$ Which of the following system attributes affects  $I_c$  (the number of instructions of a program)

Select one or more:

- ☐ Cache and memory hierarchy
- ☐ Processor implementation
- ☒ Instruction set architecture
- ☒ Compiler technology

Your answer is correct.

**Question 36**

Complete

Marked out of  
1.00

To evaluate processor performance, the following indicators and formulas are used:

Which of the following system attributes affects cycle time  $\tau$ 

Select one or more:

- ☒ Processor implementation
- ☐ Compiler technology
- ☐ Instruction set architecture
- ☒ Cache and memory hierarchy

Your answer is correct.

**Question 37**

Complete

Marked out of  
1.00

Key parameters to consider when evaluating processor hardware include:

Select one or more:

- ☒ reliability
- ☒ performance
- ☒ power consumption
- ☐ databus size
- ☒ size
- ☐ Address bus size
- ☒ cost

Your answer is correct.

**Question 38**

Complete

Marked out of  
1.00

A memory chip has 12 address pins, determine the maximum memory words of this chip?

Select one:

- ☐ 2048K
- ☐ 2048
- ☐ 4000
- ☒ 4096

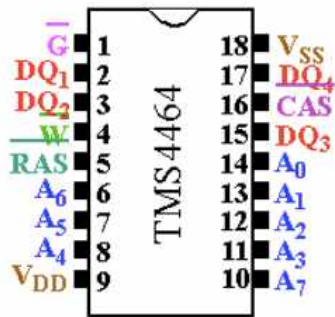
Your answer is correct.

**Question 39**

Complete

Marked out of  
1.00

Which of the following best describe the memory chip with pinout as shown below:



DQ: Data pinout

Select one:

- ☒ DRAM 64Kx4-bit
- ☐ SRAM 256Kx1-bit
- ☐ DRAM 16Kx4-bit
- ☐ SDRAM 64Kx4-bit

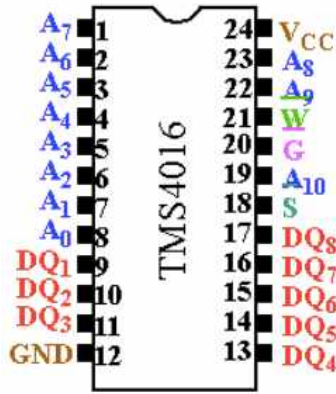
Your answer is correct.

**Question 40**

Complete

Marked out of 1.00

Choose the correct structure of memory chip as shown below



Note:

DQ: Data pinout

Select one:

- ☐ DRAM 2Kx8-bit
- ☐ SRAM 1Kx16-bit
- ☒ SRAM 2Kx8-bit
- ☐ DRAM 1Kx16-bit

Your answer is correct.

**Question 41**

Complete

Marked out of 1.00

The three key characteristics of memory are: capacity, access time and cost. Which of the following relationships hold for a variety of memory technologies?

Select one or more:

- ☒ Faster access time, greater cost per bit
- ☐ Higher capacity, higher access time
- ☒ Greater capacity, smaller cost per bit
- ☒ Greater capacity, slower access time

Your answer is correct.

**Question 42**

Complete

Marked out of 1.00

A SRAM memory chip labeled 32x8bit. Which of the following is correct pinout regarding address and data lines?

Select one:

- ☐ 32 address pins, 3 data pins
- ☐ 32 address pins, 4 data pins
- ☐ 5 address pins, 3 data pins
- ☒ 15 address pins, 8 data pins

Your answer is correct.

**Question 43**

Complete

Marked out of 1.00

In the interconnection system, the number of address lines are governed by

Select one:

- ☐ I/O Module
- ☒ CPU
- ☐ data bus line
- ☐ Memory size

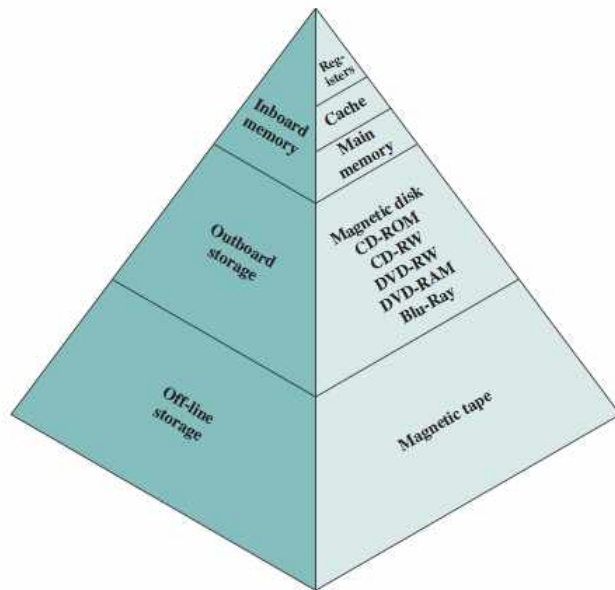
Your answer is correct.

**Question 44**

Complete

Marked out of  
1.00

For memory hierarchy below, which relationship hold when moving downward



Select one or more:

- ☒ Increasing access time
- ☒ Decreasing cost per bit
- ☒ Decreasing frequency of access by the processor
- ☐ the processor accesses more often
- ☒ Increasing capacity

Your answer is correct.

**Question 45**

Complete

Marked out of  
1.50

Identified correct addressing mode of the following instructions?

MOV AX, BX	Register ▼
MOV BP, [BX+SI]	Base relative plus index ▼
MOV AX, ARRAY [BX+SI]	Base plus index ▼
MOV AX, [BX]	Register indirect ▼
MOV AX, [1234h]	Direct ▼
MOV AX, 3540h	Immediate ▼

Your answer is partially correct.

You have correctly selected 4.

**Question 46**

Complete

Marked out of  
1.00

Part of computer memory is shown in figure

Address	1D48	1D49	1D4A	1D4B	1D4C	1D4D	1D4E	1D4F
Value	03	7F	F5	2D	5A	12	7B	C0

What is the value of AX register after instruction **MOV AX, [1D4B]** executed

Answer: 5A2D

**Question 47**

Complete

Marked out of  
1.00

Part of memory shown in figure

Address	1D48	1D49	1D4A	1D4B	1D4C	1D4D	1D4E	1D4F
Value	03	7F	F5	2D	5A	12	7B	C0

What is the value of EAX follow the execution of this code

MOV BX, 1D4C

MOV EAX, [BX]

Answer: **Question 48**

Complete

Marked out of  
1.00

the memory stack area of a program shown in figure

Address	1D48	1D49	1D4A	1D4B	1D4C	1D4D	1D4E	1D4F
Value	03	7F	F5	2D	5A	12	7B	C0

The value of SP register is 1D48. What is the value of SI follows the execution of **POP SI**Answer: **Question 49**

Complete

Marked out of  
1.00

the memory stack area of a program shown in figure

Address	1D50	1D51	1D52	1D53
Value	AF	90	71	DA

The value of SP register is 1D50. What is the value of SP follows the execution of **PUSH SI**Answer: **Question 50**

Complete

Marked out of  
3.00

Consider two different machines, with two different instruction sets, both of which have a clock rate of 200 MHz. The following measurements are recorded on the two machines running a given set of benchmark programs

Instruction Type	Instruction Count (millions)	Cycles Per Instruction
Machine A		
Arithmetic and logic	8	1
Load and store	4	3
Branch	2	4
Others	4	3
Machine B		
Arithmetic and logic	10	1
Load and store	8	2
Branch	2	4
Others	4	3

Determine the effective, CPI, MIPS rate and execution time for each machine.

CPI\_b CPU Time\_a CPU Time\_b CPI\_a MIPS\_b MIPS\_a 

Your answer is correct.

**Question 51**

Complete

Marked out of  
2.00

Choose correct RAID volume definitions for a request 2T storage.

- RAID 1 - Mirror volume 2 x 2T HDDs are needed, no data lost when the primary storage fails ▼
- Spanned Volume 2T HDD + more HDDs to extend storage, no fault tolerance, data lost when one HDD fails ▼
- RAID 0 - Striped volume 2 x 1T HDDs are needed, enhance data transfer, no fault tolerance, data lost when one HDD fails ▼
- RAID5 Volume At least 3 x 2T HDDs, fault-tolerance, no data lost, no down-time ▼

Your answer is correct.

**Question 52**

Complete

Marked out of  
1.00

Consider a 32-bit microprocessor whose bus cycle is the same duration as that of a 16-bit microprocessor. Assume that, on average, 30% of the operands and instructions are 32 bits long, 40% are 16 bits long, and 30% are only 8 bits long. Calculate the improvement achieved when fetching instructions and operands with the 32-bit microprocessor?

Select one:

- ☐ 10%
- ☐ 15%
- ☐ 17%
- ☒ 23%

Your answer is correct.

**Question 53**

Complete

Marked out of  
1.00

Consider a magnetic disk drive with 8 surfaces, 512 tracks per surface, and 64 sectors per track. Sector size is 1 kB, the average seek time is 10.2 ms and the drive rotates at 3600 rpm. What is average access time. Given: Rotational delay =  $1/(2r)$ , where  $r$  is the rotational speed in revolutions per second

Answer: 16.3 ms ▼

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# Nhóm 06-07-08CLC - Kiến trúc máy tính và hợp ngữ

**Bắt đầu vào lúc** Saturday, 8 April 2017, 1:12 PM

**State** Finished

**Kết thúc lúc** Saturday, 8 April 2017, 1:22 PM

**Thời gian thực hiện** 10 phút 13 giây

**Điểm** 22,25/22,25

**Điểm** 10,00 out of 10,00 (100%)

## Câu hỏi 1

Đúng

Đạt điểm 1,00  
trên 1,00

Đặt cờ

Given 8-bit floating-point binary format:

1 (sign) + 3 (exponent) + 4 (mantissa)

Convert the 8-bit floating point number 57 (in hex) to decimal.

Answer: 5,75

## Câu hỏi 2

Đúng

Đạt điểm 1,50  
trên 1,50

Đặt cờ

A system programmer needs to divide -6247 by 300 (decimal). Instruct him to code in debug (number must be in hex) and the result should be?

Step 1: MOV AX,E799

Step 2: CDW

Step 3: MOV BX,012C

Step 4: IDIV BX

Result:

AX = FFEC

DX = FF09

Your answer is correct.

## Câu hỏi 3

Đúng

Write mask byte (in hex) to clear the lower 4 bit of a byte value with AND instruction.

Đạt điểm 0,50  
trên 0,50

Đặt cờ

Answer:

F0



#### Câu hỏi 4

Đúng

Đạt điểm 0,50  
trên 0,50

Đặt cờ

To isolate one or more bits in a byte value, use \_\_\_\_\_ instruction.

Select one:

- ☐ OR
- ☐ NOT
- ☒ AND ✓
- ☐ XOR

Your answer is correct.

#### Câu hỏi 5

Đúng

Đạt điểm 0,25  
trên 0,25

Đặt cờ

EAX now stored a 32-bit IP address of a host. The network ID (netID) is 20 bit and can be extracted from IP byte anding with a 32-bit mask. Write correct instruction to extract netID from EAX register.

**Note:** Immediate value must be written in hex

Answer:

and EAX,FFFFFF00



#### Câu hỏi 6

Đúng

Đạt điểm 1,00  
trên 1,00

Đặt cờ

The following sequence of instructions are executed. What is the correct values at watch point?

MOV AX, 67FE

MOV BX, AX

MOV CL, BH

MOV CH, BL

watch point:

CX = FE67 ✓

BX = 67FE ✓

Your answer is correct.

#### Câu hỏi 7

Đúng

Đạt điểm 1,00  
trên 1,00

Đặt cờ

The following sequence of instructions are executed. What is the correct value of flag bits at watch point?

MOV EAX, 12AE

SUB EAX, 12AF

watch point:

sign flag

set



Zero flag (OF) =  ✓

Carry flag (CF) =  ✓

Your answer is correct.

### Câu hỏi 8

Đúng

Đạt điểm 1,00  
trên 1,00

Đặt cờ

Physical address of the stack pointer is 2DA82, stack segment located at 1DAE. Computer the value of SP register?

Answer:  ✓

### Câu hỏi 9

Đúng

Đạt điểm 1,00  
trên 1,00

Đặt cờ

Match the following hexadecimal numbers to octal

E7  ✓

6E  ✓

A9  ✓

Your answer is correct.

### Câu hỏi 10

Đúng

Đạt điểm 1,00  
trên 1,00

Đặt cờ

Enter debug command to fill 256 bytes in data segment starting from 100 with value 0D

Answer:  ✓

### Câu hỏi 11

Đúng

Đạt điểm 1,00  
trên 1,00

Đặt cờ

Given 8-bit floating-point binary format:

1 (sign) + 3 (exponent) + 4 (mantissa)

Convert the 8-bit floating point number E7 (in hex) to decimal.

Answer:  ✓

### Câu hỏi 12

Đúng

Đạt điểm 1,50  
trên 1,50

Đặt cờ

Match the correct answer for binary operations on the left

1111111 - 111  ✓

1100111 - 111  ✓

This document is available on



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1010101 + 10101  ✓

1010110 - 101  ✓

1110011 + 11001  ✓

1111111 + 11111  ✓

Your answer is correct.

### Câu hỏi 13

Đúng

Đạt điểm 1,00  
trên 1,00

Đặt cờ

Convert the following binary numbers to hexadecimal

10101001  ✓

01101110  ✓

11100101  ✓

11100111  ✓

Your answer is correct.

### Câu hỏi 14

Đúng

Đạt điểm 1,00  
trên 1,00

Đặt cờ

The following sequence of instructions are executed. What is the correct value of CF and OF at watch point?

MOV AX,140h

MOV CX,8h

MUL CX

watch point:

CF=  ✓

OF=  ✓

Your answer is correct.

### Câu hỏi 15

Đúng

Đạt điểm 0,50  
trên 0,50

Đặt cờ

To test one bit in a byte value without destructing the byte, use \_\_\_\_\_ instruction.

Select one:

☐ NOT

☐ AND

- ☒ TEST ✓  
☐ OR

Your answer is correct.

### Câu hỏi 16

Đúng

Đạt điểm 1,00  
trên 1,00

Đặt cờ

Given a row of memory image in debug

0AE8:0120 13 96 D0 E0 D0 E0 A2 1E - 99 80 3E 20 99 00 75 24

Initially, AX=BX=CX=DX=0, SI=121

What are value of CX,DX after execution of the following instructions?

MOV DX, [SI]

MOV CX, [SI+2]

DX = D096 ✓

CX = D0E0 ✓

Your answer is correct.

### Câu hỏi 17

Đúng

Đạt điểm 1,00  
trên 1,00

Đặt cờ

Select correct match for register values at watch points:

MOV AX, 152D

ADD AX, 003F

watch point #1:

ADD AH, 10

watch point #2:

.....

watch point #2: AH = 25 ✓

watch point #1: AL = 6C ✓

Your answer is correct.

### Câu hỏi 18

Đúng

Đạt điểm 1,00  
trên 1,00

Đặt cờ

A memory location located in extra segment which now has value of 564F. This memory managed by ES:SI register-pair. SI now points to 905F. Compute the physical address of this memory location

Answer: 5F54F

This document is available on

 **studocu**

**Câu hỏi 19**

Đúng

Đạt điểm 1,00  
trên 1,00

Đặt cờ

Select correct match for AL and carry flag at watch point #1:

MOV BL, 8C

MOV AL, 7E

ADD AL, BL

watch point #1:

.....

Carry flag **set** ✓AL **0A** ✓

Your answer is correct.

**Câu hỏi 20**

Đúng

Đạt điểm 1,00  
trên 1,00

Đặt cờ

Convert the 32-bit floating point number C4361000 (in hex) to decimal.

Answer: **-728,25** ✓**Câu hỏi 21**

Đúng

Đạt điểm 1,00  
trên 1,00

Đặt cờ

Which of the following instructions are not legal addressing?

Select one or more:

- ☐ MOV AX, [DI]
- ☒ MOV AX, [BX+SP] ✓
- ☒ MOV AX, [SP+1] ✓
- ☐ MOV CX, [SI]

Your answer is correct.

**Câu hỏi 22**

Đúng

Đạt điểm 1,00  
trên 1,00

Đặt cờ

Compute the physical address of stack top if stack pointer is FFAE and stack segment located at 1DAE

Answer: **2DA8E** ✓**Câu hỏi 23**

Đúng

Đạt điểm 0,50  
trên 0,50

Đặt cờ

Sign-extend number 1011 0101 (8-bit binary) to 16-bit

Answer: **111111110110101** ✓

**Câu hỏi 24**

Đúng

Đạt điểm 1,00  
trên 1,00 Đặt cờ

The following sequence of instructions are executed. What is the correct value of AX, CX, DX at watch point?

```
MOV AX,30  
MOV CX,FFFF  
MUL CX
```

watch point:

CX = FFFF ✓

AX = FFD0 ✓

DX = 002F ✓

Your answer is correct.

[Finish review](#)







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Kiểm tra cuối kỳ đề 1

**Started on** Monday, 5 June 2017, 1:12 PM

**State** Finished

**Completed on** Monday, 5 June 2017, 2:22 PM

**Time taken** 1 hour 9 mins

**Question 1**

Complete

Marked out of 1.20

Consider the following assembly instruction sequence

```
CMP DL, 0
JB  x_label
CMP DL, 9
JA  a_label
ADD DL, 30h
JMP x_label
```

a\_label:

```
CMP DL, 0Fh
JA  x_label
ADD DL, 37h
```

x\_label:

```
MOV AL, DL
```

watch point:

...

Choose correct value of AL register at watch point for different value of DL?

DL=10

38h ▼

DL=8

41h ▼

DL=55h

55h ▼

DL=0FFh

0FFh ▼

**Question 2**

Complete

Marked out of 1.00

The following sequence of instructions are executed. What is the correct value of CF and OF at watch point?

```
MOV AX,FFF6h
MOV CX,1000h
IMUL CX
```

watch point:

OF=

set ▼

CF=

undefined ▼

**Question 3**

Complete

Marked out of 0.50

Which could be correct ones for the destination operand in a data movement instruction?

Select one or more:

- ☒ register
- ☐ immediate data
- ☒ memory location
- ☐ all choices are correct

**Question 4**

Complete

Marked out of 1.20

Write mask byte (in hex) to clear bit 2nd, 3rd, 5th of a byte value with AND instruction (LSB is 1st bit).

Answer: 10010111

**Question 5**

Complete

Marked out of 0.50

if the location to which the control is to be transferred lies in a segment other than the current one, then the jump instruction is call

Select one:

- ☐ intrasegment indirect mode
- ☐ intersegment mode
- ☐ intrasegment mode
- ☒ intrasegment direct mode

**Question 6**

Complete

Marked out of 1.20

Convert the 32-bit floating point number 44363800 (in hex) to decimal.

Answer: 1144403968

**Question 7**

Complete

Marked out of 1.00

The following sequence of instructions are executed. What is the correct value of flag bits at watch point?

```
MOV AX,FFFF
```

```
MOV CX,5
```

```
MUL CX
```

watch point:

Carry flag (CF) =

set ▼

Overflow flag (OF) =

not defined ▼

**Question 8**

Complete

Marked out of 0.50

In multiplication instruction, when the source operand is 16 bit, how can the result be taken?

Select one:

- ☐ from AX:DX pair
- ☐ from AX
- ☐ from EAX
- ☒ from DX:AX pair

**Question 9**

Complete

Marked out of 1.00

Given a row of memory image in debug

```
0AE8:0120 13 96 D0 E0 D0 E0 A2 1E - 99 80 3E 20 99 00 75 24
```

Initially, AX=BX=CX=DX=0, SI=128

What are value of AX,DX after execution of the following instructions?

```
MOV EDX, [SI]
```

```
MOV EAX, [SI+4]
```

DX = 203E ▼

AX = 8099 ▼

**Question 10**

Complete

Marked out of 1.00

Which statements are correct for HDDs?

Select one or more:

- ☒ Head, Track, Sector are key parameters for access data on hard disk
- ☒ Bits are stored on tracks
- ☐ Head, Track, Cylinder are key parameters for access data on hard disk
- ☐ Bits are store randomly on disk surfaces

**Question 11**

Complete

Marked out of 0.50

Which are correct action for SCASW string operation if DF is set (=1)

Select one or more:

- ☐ compare value in AL register with memory location pointed by DS:[SI]
- ☐ decrease DI by 2
- ☒ compare value in AL register with memory location pointed by ES:[DI]
- ☒ increase DI by 2

**Question 12**

Complete

Marked out of 1.00

Given a row of memory image in debug

0AE8:0120 13 96 D0 E0 D0 E0 A2 1E - 99 80 3E 20 99 00 75 24

SI = 120, DI = 128

Select correct sequence of instructions to subtract words at [DI] from [SI] then store the result at memory location 12A

Step 1: MOV AX, [SI] ▼

Step 2: SUB AX, [DI] ▼

Step 3: SUB AX, [SI] ▼

Step 4: MOV BX, 012A ▼

**Question 13**

Complete

Marked out of 0.50

The instruction that supports addition when carry exists is

Select one:

- ☐ DAS
- ☐ SBB
- ☒ ADC
- ☐ ADD

**Question 14**

Complete

Marked out of 1.00

In computer, how does the processor serve multiple interrupt request from devices?

Select one:

- ☒ Each device are assigned an interrupt priority, the device with lower priority will be served.
- ☐ Device with higher priority will use interrupt enable flag
- ☐ The processor can not process multiple interrupt requests
- ☐ Each device are assigned an interrupt priority, the device with higher priority will be served.

**Question 15**

Complete

Marked out of 1.00

The following sequence of instructions are executed. What is the correct value of flag bits at watch point?

MOV AL, 80

MOV BL, 2

MUL BL

watch point:

Overflow flag (OF) =  ▼

Carry flag (CF) =  ▼

**Question 16**

Complete

Marked out of 0.50

To test one bit in a byte value without destructing the byte, use \_\_\_\_\_ instruction.

Select one:

- ☐ AND
- ☐ OR
- ☒ NOT
- ☐ TEST

**Question 17**

Complete

Marked out of 1.00

Which are correct about the data registers of IA-32 processors:

Select one or more:

- ☐ Lower halves of the 32-registers can be used as 4 16-bit data registers: AX,BX,CX,DX
- ☒ complete 32-bit registers: EAX, EBX, ECX, EDX
- ☐ Lower halves of the 16-registers can be used as 8-bit data registers: AH,AL,BH,BL,CH,CL,DH,DL
- ☒ Higher halves of the 32-bit registers can be used as 16-bit registers: EAX,EBX,ECX,EDX

**Question 18**

Complete

Marked out of 1.20

Convert 0.1015625 to IEEE 32-bit floating point format (1 sign+ 8 exponent + 23 mantissa)

Answer: Thay thuong tinh cho em 7d qua mon, em cam on!

**Question 19**

Complete

Marked out of 1.00

The following sequence of instructions are executed. What is the correct value of flag bits at watch point?

MOV DL,FF

MOV AL,F6

IMUL DL

watch point:

OF = set ▼

CF = set ▼

**Question 20**

Complete

Marked out of 1.00

Choose correct features for SRAM and DRAM

SRAM Faster access time, cost more per bit, smaller size

DRAM Slower access time, cheaper cost per bit, can manufacture with larger size

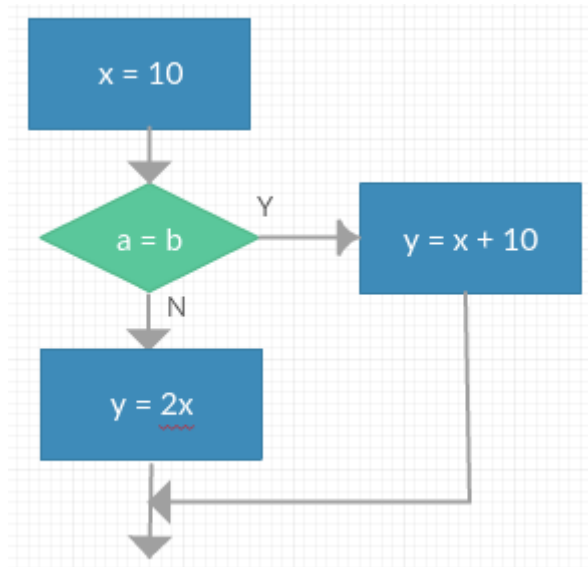


**Question 21**

Complete

Marked out of 1.20

Given a flowchart of an algorithm:



Select the correct instruction sequence:

Select one or more:

- ☐ `mov dl,10`  
`cmp al,bl`  
`jz n_label`  
`mov cl,1`  
`shl dl,cl`  
`jmp e_label`  
`n_label:`  
`add dl,10`  
`e_label:`  
`mov dh,dl`
- ☐ `mov dl,10`  
`cmp al,bl`  
`jnz n_label`  
`add dl,10`  
`jmp e_label`  
`n_label:`  
`mov cl,1`  
`shr dl,cl`  
`e_label:`  
`mov dh,dl`
- ☒ `mov dl,10`  
`cmp al,bl`  
`jnz n_label`  
`add dl,10`  
`jmp e_label`  
`n_label:`  
`mov cl,1`  
`shl dl,cl`  
`e_label:`  
`mov dh,dl`

```

☐ mov dl,10
    cmp al,bl
    jnz n_label
    add dl,10
    mov dh,dl
    jmp e_label
n_label:
    mov cl,1
    shl dl,cl
e_label:
    mov dh,dl

```

### Question 22

Complete

Marked out of 1.00

The following sequence of instructions are executed. What is the correct value of flag bits at watch point?

```
MOV AL, 0F
```

```
ADD AL, F1
```

watch point:

Zero flag (OF) =

Carry flag (CF) =

### Question 23

Complete

Marked out of 0.50

Which are correct action for STOSB string operation if DF is reset (=0)

Select one or more:

- ☐ decrease DI by 1
- ☒ Store 8-bit value from AL into memory location pointed by DS:[SI]
- ☒ increase DI by 1
- ☐ Store 8-bit value from AL into memory location pointed by ES:[DI]

**Question 24**

Complete

Marked out of 1.00

What are components of Von Neumann, namely IAS computer?

Select one or more:

- ☒ I/O Equipments
- ☐ Monitor
- ☒ CPU
- ☒ Memory
- ☐ Bus
- ☐ Punched card reader

**Question 25**

Not answered

Marked out of 1.00

Compute the physical address of the next instruction will be execute if instruction pointer is 091D and code segment located at 1FAF

Answer:

**Question 26**

Complete

Marked out of 1.00

Which set of registers are valid for addressing a stack memory location?

Select one or more:

- ☐ SS:BP
- ☒ SS:BX
- ☒ DS:SI
- ☐ SS:SP

**Question 27**

Complete

Marked out of 0.50

The instruction that is used for finding out the codes in case of code conversion problems is

Select one:

- ☐ XOR
- ☐ JCXZ
- ☐ XLAT
- ☒ XCHG

**Question 28**

Complete

Marked out of 0.50

To clear one or more bits in a byte value, use \_\_\_\_\_ instruction.

Select one:

- ☐ OR
- ☐ NOT
- ☒ AND
- ☐ XOR

**Question 29**

Complete

Marked out of 1.00

The following sequence of instructions are executed. What is the correct value of flag bits at watch point?

MOV AL,-5

SUB AL,124

watch point:

Zero flag (OF) = not defined ▼

Overflow flag (OF) = reset ▼

Sign flag (SF) = set ▼

Carry flag (CF) = set ▼

**Question 30**

Complete

Marked out of 1.00

the memory stack area of a program shown in figure

Address	1D50	1D51	1D52	1D53
Value	AF	90	71	DA

The value of SP register is 1D50. What is the value of SP follows the execution of **PUSH SI**

Answer: 90

**Question 31**

Complete

Marked out of 1.00

Enter debug command to fill 256 bytes in data segment starting from 100 with value 0D

Answer: ADD 0D, 256[100]

**Question 32**

Complete

Marked out of 0.50

Which are correct action for LODSB string operation if DF is reset (=0)

Select one or more:

- ☐ increase SI by 1
- ☒ Load 8-bit value at memory location pointed by ES:[DI] into AL
- ☐ Load 8-bit value at memory location pointed by DS:[SI] into AL
- ☒ decrease DI by 1

**Question 33**

Complete

Marked out of 1.20

Given a code snippet:

```
int n = 10;
do {
    n--;
} while (n > 0);
```

Which ones are the equivalent logic sequence of instructions in Assembly

Select one or more:

- ☐

```
mov cx, 10
a_label:
    dec cx
    cmp cx, 0
    jz e_label
    jmp a_label
e_label:
```
- ☒

```
mov cx, 10
a_label:
    ....
    dec cx
    loop a_label
```
- ☐

```
mov cx, 10
a_label:
    ....
    dec cx
    cmp cx, 0
    jz a_label
```
- ☐

```
mov cx, 10
a_label:
    ....
    loop a_label
```

**Question 34**

Complete

Marked out of 1.00

For better speed, in CPU design, engineers make use of the following techniques:

Select one or more:

- ☐ Speculative execution
- ☐ Branch prediction
- ☐ Faster CPU internal bus
- ☒ Pipelining

**Question 35**

Complete

Marked out of 0.50

In multiplication instruction, when the source operand is 8 bit, \_\_\_\_\_ will be multiplied with source.

Select one:

- ☒ Whatever general purpose register
- ☐ BX
- ☐ AL
- ☐ AX

**Question 36**

Complete

Marked out of 1.00

Which are valid based index addressing?

Select one or more:

- ☐ [BX+SI]
- ☒ [BX+DI]
- ☒ [DX+SI]
- ☐ [SP+DI]

**Question 37**

Complete

Marked out of 1.00

Memory dump at 1D20:0200 as below:

1D20:0200 00 20 10 5D 55 47 00 90 - 00 10 20 30 40 50 60 70

Given value of registers: DS = 1D20, SI = 200, BX = 202, AX = 0103

Identify correct value of AX register after XLAT instruction is executed.

AH = 5Dh ▼

AL = 10h ▼

**Question 38**

Complete

Marked out of 1.20

Given a code snippet (ax, bx are none negative integers):

```
if (ax >= bx)
```

```
    ax -=bx;
```

```
else
```

```
    bx -=ax;
```

What is the equivalent logic sequence of instructions in Assembly

Select one:

- ☐

```
cmp ax,bx
jbe a_label
sub ax,bx
jmp x_label
a_label:
sub bx,ax
x_label:
```
- ☐

```
cmp ax,bx
jb a_label
sub ax,bx
jmp x_label
a_label:
sub bx,ax
x_label:
```
- ☒

```
cmp ax,bx
ja a_label
sub ax,bx
jmp x_label
a_label:
sub bx,ax
x_label:
```
- ☐

```
cmp ax,bx
jnbe a_label
sub ax,bx
jmp x_label
a_label:
sub bx,ax
x_label:
```

**Question 39**

Complete

Marked out of 0.50

The instruction, MOV AX, 0005h belongs to which addressing mode?

Select one:

- ☐ Immediate
- ☒ direct
- ☐ register
- ☐ index

**Question 40**

Complete

Marked out of 1.00

Part of computer memory is shown in figure

Address	1D48	1D49	1D4A	1D4B	1D4C	1D4D	1D4E	1D4F
Value	03	7F	F5	2D	5A	12	7B	C0

What is the value of AX register after instruction **MOV AX, [1D4B]** executed

Answer: 2D

**Question 41**

Complete

Marked out of 0.50

Which of the following instructions are not valid?

Select one or more:

- ☐ MOV AX, [BP+2]
- ☐ MOV AX, SI
- ☒ MOV DS, B800h
- ☒ MOV SP, SS:[SI+2]



**Question 42**

Complete

Marked out of 1.00

The following sequence of instructions are executed. What is the correct value of AX, CX, DX at watch point?

```
MOV AX,0020
```

```
MOV CX,0010
```

```
MUL CL
```

watch point:

AX = 0200 ▼

DX = 020F ▼

CX = 0010 ▼

**Question 43**

Complete

Marked out of 1.00

Basic functions that a computer can perform including:

Select one or more:

- ☒ Data movement
- ☐ Direct memory access
- ☒ Control
- ☒ Data storage
- ☐ Interrupt
- ☒ Data processing

**Question 44**

Complete

Marked out of 1.00

Select correct match for register values at watch points:

MOV AX, 4FCA

ADD AX, DDA9

watch point #1:

ADD AH, F3

watch point #2:

.....

watch point #1: AH = 20 ▼

watch point #2: AL = 73 ▼

**Question 45**

Complete

Marked out of 1.20

Hereafter is instruction sequence to compute the sum of 8 bytes starting at memory address 200. Two lines of code are possibly missing. Choose correct one to fill in?

01: \_\_\_\_\_; possibly missing code

02: MOV AL, 0

03: MOV CX, 8

04: Loop\_label:

05: \_\_\_\_\_; possibly missing code

06: ADD AX, [SI];

07: INC SI

08: LOOP Loop\_label

01: MOV SI, 200 ▼

05: CWD ▼

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Kiểm tra cuối kỳ đề 2

**Started on** Monday, 5 June 2017, 1:11 PM

**State** Finished

**Completed on** Monday, 5 June 2017, 2:20 PM

**Time taken** 1 hour 9 mins

### Question 1

Complete

Marked out of 1.20

Convert the 32-bit floating point number 44363C00 (in hex) to decimal.

Answer: 1144404992

### Question 2

Complete

Marked out of 0.50

The instruction that subtracts 1 from the contents of the specified register/memory location is

Select one:

- ☒ SUB
- ☐ DEC
- ☐ SBB
- ☐ INC

**Question 3**

Complete

Marked out of 1.00

Memory dump at 1D20:0200 as below:

1D20:0200 00 20 10 5D 55 47 00 90 - 00 10 20 30 40 50 60 70

Given value of registers:

DS = 1D20, ES = 1D20,

DI = 20A, SI = 208,

BX = 202, AX = 0103, CX = 0003

and flag bit DF = 1

What is the correct value of AX, SI, DI registers after the instruction REP LODSW is executed?

DI = 0202h ▼

AX = 5040h ▼

SI = 5547h ▼

**Question 4**

Complete

Marked out of 0.50

Which are correct action for SCASW string operation if DF is reset (=0)

Select one or more:

- ☐ compare value in AL register with memory location pointed by DS:[SI]
- ☐ decrease DI by 2
- ☐ increase DI by 2
- ☒ compare value in AL register with memory location pointed by ES:[DI]

**Question 5**

Complete

Marked out of 1.50

Which are correct about the Pointer registers of IA-32 processors:

Select one or more:

- ☒ Base Pointer (BP): The 16 bit pointer refers to stack memory
- ☐ Stack Pointer (SP): the 16 bit pointer to the top of stack
- ☒ Instruction Pointer (IP): the 16 bit register points to the next instruction to be execute
- ☐ Base Pointer (EBP): The 32 bit pointer refers to stack memory
- ☒ Stack Pointer (ESP): the 32 bit pointer to the top of stack
- ☐ Instruction Pointer (EIP): the 32 bit register points to the next instruction to be execute

**Question 6**

Complete

Marked out of 1.00

What are components of Von Neumann, namely IAS computer?

Select one or more:

- ☐ Punched card reader
- ☒ Bus
- ☐ Monitor
- ☒ Memory
- ☐ I/O Equipments
- ☒ CPU

**Question 7**

Complete

Marked out of 1.00

Which statements are correct for HDDs?

Select one or more:

- ☐ Head, Track, Cylinder are key parameters for access data on hard disk
- ☒ Head, Track, Sector are key parameters for access data on hard disk
- ☐ Bits are store randomly on disk surfaces
- ☒ Bits are stored on tracks

**Question 8**

Complete

Marked out of 0.50

The instruction that loads effective address is

Select one:

- ☐ LAHF
- ☐ LDS
- ☒ LEA
- ☐ LES

**Question 9**

Not answered

Marked out of 1.00

Enter debug command to fill 250 bytes in the memory segment FED5 in computer memory starting from 100 with value AD

Answer:

**Question 10**

Complete

Marked out of 1.00

The following sequence of instructions are executed. What is the correct value of EAX, EBX, EDX at watch point?

```
MOV EAX,00002000
```

```
MOV EBX,00100000
```

```
MUL EBX
```

watch point:

EAX =  00000000

EDX =  00100000

EBX =  00000002

**Question 11**

Not answered

Marked out of 1.20

Convert 39887.5625 to IEEE 32-bit floating point format (1 sign+ 8 exponent + 23 mantissa) in hex

Answer:

**Question 12**

Complete

Marked out of 0.50

The instruction, MOV AX, 1234h is an example of

Select one:

- ☒ Immediate addressing mode
- ☐ based index addressing mode
- ☐ direct addressing mode
- ☐ register addressing mode

**Question 13**

Complete

Marked out of 1.00

The following sequence of instructions are executed. What is the correct value of flag bits at watch point?

`MOV AL, 78``MOV BL, 2``MUL BL`

watch point:

Carry flag (CF) =

reset ▼

Overflow flag (OF) =

reset ▼

**Question 14**

Complete

Marked out of 1.00

The following sequence of instructions are executed. What is the correct value of flag bits at watch point?

`MOV AL,-5``ADD AL,132``ADD AL,1`

watch point:

Zero flag (OF) =

set ▼

Overflow flag (OF) =

reset ▼

Sign flag (SF)

reset ▼

Carry flag (CF) =

reset ▼

**Question 15**

Complete

Marked out of 1.00

In computer, how does the processor serve multiple interrupt request from devices?

Select one:

- ☐ Device with higher priority will use interrupt enable flag
- ☒ Each device are assigned an interrupt priority, the device with higher priority will be served.
- ☐ The processor can not process multiple interrupt requests
- ☐ Each device are assigned an interrupt priority, the device with lower priority will be served.



**Question 16**

Complete

Marked out of 0.50

the instruction, JMP C008:2000h is an example of

Select one or more:

- ☐ intersegment jump
- ☐ far jump
- ☐ near jump
- ☒ intrasegment mode

**Question 17**

Complete

Marked out of 0.50

In multiplication instruction, the result is taken from AX means the source operand is \_\_\_\_\_ bit

Select one:

- ☒ 8
- ☐ 16
- ☐ None of the choices are correct
- ☐ 4

**Question 18**

Complete

Marked out of 1.00

Memory dump at 1D20:0200 shown as below:

1D20:0200 00 20 10 5D 55 47 00 90 - 00 10 20 30 40 50 60 70

Given value of registers:

DS = 1D20, ES = 1D20, DI = 20A

The following sequence of instructions is being executed:

```
MOV SI,208h
MOV AX,0040h
MOV CX,000Ah
CLD
REPZ SCASB
```

watch point:

.....

What is the correct value of AX, SI, DI registers at watch point?

SI = 020Ch ▼

DI = 4030h ▼

AX = 020Bh ▼

**Question 19**

Complete

Marked out of 1.00

What is the correct value of SI, AL (in hex) at watch point:

```
01:      MOV SI, 300h
02:      MOV AL, 10h
03:      MOV CX, 7
04: Loop_label:
05:      MOV [SI], AL
06:      ADD AL, 10h
07:      INC SI
08:      LOOP Loop_label
```

watch point:

SI    308h    ▼

AL = 70h    ▼

**Question 20**

Not answered

Marked out of 1.00

Physical address of a memory location is 5FE2E. This memory address located by DI register which now has value of 993E. Compute the memory address of data segment register

Answer:

**Question 21**

Complete

Marked out of 1.00

Basic functions that a computer can perform including:

Select one or more:

- ☒ Direct memory access
- ☐ Data movement
- ☒ Data processing
- ☒ Control
- ☐ Interrupt
- ☒ Data storage

**Question 22**

Complete

Marked out of 1.20

Given a code snippet:

```
int ax, bx;  
...  
if (ax >= bx)  
    ax -=bx;  
else  
    bx -=ax;
```

What is the equivalent logic sequence of instructions in Assembly

Select one:

- ☒

```
cmp ax,bx  
jbe a_label  
sub ax,bx  
jmp x_label  
a_label:  
sub bx,ax  
x_label:
```
- ☐

```
cmp ax,bx  
jl a_label  
sub ax,bx  
jmp x_label  
a_label:  
sub bx,ax  
x_label:
```
- ☐

```
cmp ax,bx  
jge a_label  
sub ax,bx  
jmp x_label  
a_label:  
sub bx,ax  
x_label:
```
- ☐

```
cmp ax,bx  
ja a_label  
sub ax,bx  
jmp x_label  
a_label:  
sub bx,ax  
x_label:
```

**Question 23**

Complete

Marked out of 1.20

Given an assembly code copying the memory buffer Buff1 to Buff2:

```
PUSH DS
POP  ES
LEA  SI, Buff1
LEA  DI, Buff2
MOV  CX, 20
;--- Start of block
```

cp\_loop:

```
MOV  AL, Byte Ptr [SI]
MOV  Byte Ptr ES:[DI], AL
INC  SI
INC  DI
LOOP cp_loop
; ---End of block
```

Choose equivalent string operations in place of block code from ---Start of block to ---End of block

Select one or more:

- ☐ CLD  
cp\_loop:  
MOVSB  
LOOP cp\_loop
- ☒ CLD  
cp\_loop:  
REP MOVSB  
LOOP cp\_loop
- ☐ CLD  
REP MOVSB
- ☐ STD  
cp\_loop:  
MOVSB  
LOOP cp\_loop

**Question 24**

Complete

Marked out of 0.50

After each execution of POP instruction, the stack pointer is

Select one:

- ☒ increment by 1
- ☐ increment by 2
- ☐ decrement by 2
- ☐ decrement by 1

**Question 25**

Complete

Marked out of 1.00

Given a row of memory image in debug

0AE8:0120 13 96 D0 E0 D0 E0 A2 1E - 99 80 3E 20 99 00 75 24

Initially, AX=BX=CX=DX=0, SI=128

What are value of AX,DX after execution of the following instructions?

MOV EDX, [SI]

MOV EAX, [SI+4]

EDX = 99007524 ▼

EAX = 203E8099 ▼

**Question 26**

Not answered

Marked out of 1.00

Part of memory shown in figure

Address	1D48	1D49	1D4A	1D4B	1D4C	1D4D	1D4E	1D4F
Value	03	7F	F5	2D	5A	12	7B	C0

What is the value of AH follow the execution of this code:

MOV BX, 1D4D

MOV AX, [BX]

Answer:

**Question 27**

Complete

Marked out of 1.00

Which are valid based indexed addressing?

Select one or more:

- ☐ [SP][SI]
- ☒ [BX][SI]
- ☐ [BP][SI]
- ☐ [DX][DI]

**Question 28**

Complete

Marked out of 1.20

Consider the following assembly instruction sequence

```
XOR BX, BX
CMP DL, 5
JLE a_label
CMP DL, 17h
JGE a_label
MOV BX, 10h
```

a\_label:

```
INC BX
```

watch point:

...

Choose correct value of BX register at watch point for different value of DL?

DL=0FFh    11h    ▼

DL=10    01h    ▼

DL=17h    01h    ▼

DL=0Ah    28h    ▼

**Question 29**

Not answered

Marked out of 1.00

Part of computer memory are shown in figure.

Address	1D48	1D49	1D4A	1D4B	1D4C	1D4D	1D4E	1D4F
Value	03	7F	F5	2D	5A	12	7B	C0

What is the value of AX register after instruction **MOV AX, 1D49** executed

Answer:

**Question 30**

Complete

Marked out of 0.50

To set one or more bits in a byte value, use \_\_\_\_\_ instruction.

Select one:

- ☐ NOT
- ☐ XOR
- ☐ AND
- ☒ OR

**Question 31**

Complete

Marked out of 1.00

Choose correct features for SRAM and DRAM

DRAM Slow access time, cheaper cost per bit, can only manufacture at larger size

SRAM Faster access time, cost more per bit, smaller size

**Question 32**

Complete

Marked out of 1.00

Major structural components of the CPU include:

Select one or more:

- ☒ Arithmetic and Logic Unit
- ☐ Instruction Register
- ☐ Interconnections
- ☒ Control Unit
- ☒ Instruction Pointer (PC)
- ☐ Registers

**Question 33**

Complete

Marked out of 1.00

Select correct match for AL and carry flag at watch point #1:

MOV BL, 8C

MOV AL, 7E

ADD AL, BL

watch point #1:

.....

AL set ▼

Carry flag 0A ▼

**Question 34**

Complete

Marked out of 1.20

Given a code snippet:

```
if (a>=0 && a <=9)
```

```
    x = a + 30h;
```

```
else if (a >=10 && a <=15)
```

```
    x = a + 55;
```

The logic of the above code snippet in assembly is (with missing lines):

```
01:    CMP DL, 0
```

```
02:    ----- ; possibly missing code
```

```
03:    CMP DL, 9
```

```
04:    ----- ; possibly missing code
```

```
05:    ADD DL, 30h
```

```
06:    ----- ; possibly missing code
```

```
a_label:
```

```
08:    CMP DL, 0Fh
```

```
09:    ----- ; possibly missing code
```

```
10:    ADD DL, 55
```

```
x_label:
```

```
12:    MOV AL, DL
```

```
...
```

Choose correct missing instructions in the above sequence of instructions

```
02:    JMP a_label ▼
```

```
06:    JMP x_label ▼
```

```
04:    empty ▼
```

```
09:    empty ▼
```



**Question 35**

Complete

Marked out of 1.50

Given a row of memory image in debug

072C:FFF0 00 00 00 01 00 00 2C 07 - 07 01 2C 07 17 72 00 00

SS=072C, SP=FFF8, DS = 072C

Assume the stack now stores two (2) 16-bit parameters and one (1) 16-bit return address in following order: stack top (return address) >> parameter #1 >> parameter #2.

The following sequence of instructions are executed. What is the correct values at watch points?

MOV BP, SP

watch point #1 (BP):

MOV AX, [BP+2]

watch point #2 (AX):

ADD AX, [BP+4]

watch point #3 (AX):

MOV DI, 120

MOV [DI], AX

watch point #1: AX = 2C07 ▼

watch point #2: BP = FFF8 ▼

watch point #3: SUB AX, [SI] ▼

**Question 36**

Complete

Marked out of 1.20

Given a code snippet to look for a value (from AL) in memory buffer Buff

Buff     DB   11,22,33,44,55

.....

01:     LEA DI, Buff

02:     ----- ; possibly missing code

03:     MOV AL,33

04:     MOV CX,5

a\_label:

05:     ----- ; possibly missing code

06:     CMP Byte Ptr [DI],AL

07:     ----- ; possibly missing code

08:     LOOPNZ a\_label

...

Choose correct missing instructions in the above sequence of instructions

05:     INC DI     ▼

07:     DEC DI     ▼

02:     Empty     ▼

**Question 37**

Complete

Marked out of 0.50

In multiplication instruction, when the value of source operand is 12 (decimal), the other operand is loaded in AX. Which registers can be used to load source operand?

Select one or more:

☒ DX

☐ BX

☐ CL

☐ AX

☐ DL

**Question 38**

Complete

Marked out of 1.00

The following sequence of instructions are executed. What is the correct value of AX and DX (in hex) at watch point?

```
MOV AX,FFF6h
```

```
MOV CX,1000h
```

```
IMUL CX
```

watch point:

AX= FFF6 ▼

DX= 6000 ▼

**Question 39**

Complete

Marked out of 0.50

the instruction, CMP to compare source and destination operands by \_\_\_\_\_

Select one:

- ☒ comparing
- ☐ subtracting
- ☐ dividing
- ☐ adding

**Question 40**

Complete

Marked out of 0.50

To test one bit in a byte value which can be destructive. use \_\_\_\_\_ instruction.

Select one:

- ☒ TEST
- ☐ AND
- ☐ OR
- ☐ NOT

**Question 41**

Complete

Marked out of 0.50

Which are correct input for XLAT instruction

Select one or more:

- ☒ DS:[BX] pointed to look-up table
- ☐ DS:[SI] pointed to look-up table
- ☐ look-up index must be loaded into DL
- ☐ look-up index must be loaded into AL

**Question 42**

Complete

Marked out of 0.50

Which are correct action for LODSW string operation if DF is reset (=0)

Select one or more:

- ☒ increase SI by 2
- ☐ Load 16-bit value at memory location pointed by DS:[SI] into AX
- ☒ Load 16-bit value at memory location pointed by ES:[DI] into AX
- ☐ decrease DI by 2

**Question 43**

Complete

Marked out of 1.00

The following sequence of instructions are executed. What is the correct value of flag bits at watch point?

MOV DL,19

MOV AL,F6

IMUL DL

watch point:

OF = reset ▼

CF = reset ▼

**Question 44**

Complete

Marked out of 1.00

The following sequence of instructions are executed. What is the correct value of AX, DX at watch point?

MOV DL,FF

MOV AL,42

IMUL DL

watch point:

AX = FF00 ▼

DX = FFBE ▼

**Question 45**

Not answered

Marked out of 1.20

Write mask byte (in hex) to clear the lower 4 bit of a byte value with AND instruction.

Answer:

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Kiểm tra cuối kỳ đề 1

**Started on** Monday, 5 June 2017, 1:11 PM

**State** Finished

**Completed on** Monday, 5 June 2017, 2:20 PM

**Time taken** 1 hour 9 mins

### Question 1

Complete

Marked out of 1.00

The following sequence of instructions are executed. What is the correct value of flag bits at watch point?

MOV DL,FF

MOV AL,F6

IMUL DL

watch point:

OF =

CF =

**Question 2**

Complete

Marked out of 0.50

In multiplication instruction, when the source operand is 16 bit, how can the result be taken?

Select one:

- ☐ from DX:AX pair
- ☐ from EAX
- ☐ from AX:DX pair
- ☒ from AX

**Question 3**

Not answered

Marked out of 1.20

Consider the following assembly instruction sequence

```
CMP DL, 0
JB  x_label
CMP DL, 9
JA  a_label
ADD DL, 30h
JMP x_label
```

a\_label:

```
CMP DL, 0Fh
JA  x_label
ADD DL, 37h
```

x\_label:

```
MOV AL, DL
```

watch point:

...

Choose correct value of AL register at watch point for different value of DL?

DL=10

Choose... ▼

DL=8

Choose... ▼

DL=55h

Choose... ▼

DL=0FFh

Choose... ▼

**Question 4**

Complete

Marked out of 1.20

Hereafter is instruction sequence to compute the sum of 8 bytes starting at memory address 200. Two lines of code are possibly missing. Choose correct one to fill in?

```
01: _____; possibly missing code
02:     MOV AL, 0
03:     MOV CX, 8
04: Loop_label:
05: _____; possibly missing code
06:     ADD AX, [SI];
07:     INC SI
08:     LOOP Loop_label
```

01: MOV [SI],200 ▼

05: CWD ▼

**Question 5**

Complete

Marked out of 0.50

In multiplication instruction, when the source operand is 8 bit, \_\_\_\_\_ will be multiplied with source.

Select one:

- ☐ AX
- ☐ BX
- ☒ AL
- ☐ Whatever general purpose register

**Question 6**

Complete

Marked out of 1.00

Which are valid based index addressing?

Select one or more:

- ☒ [BX+DI]
- ☒ [DX+SI]
- ☐ [SP+DI]
- ☒ [BX+SI]

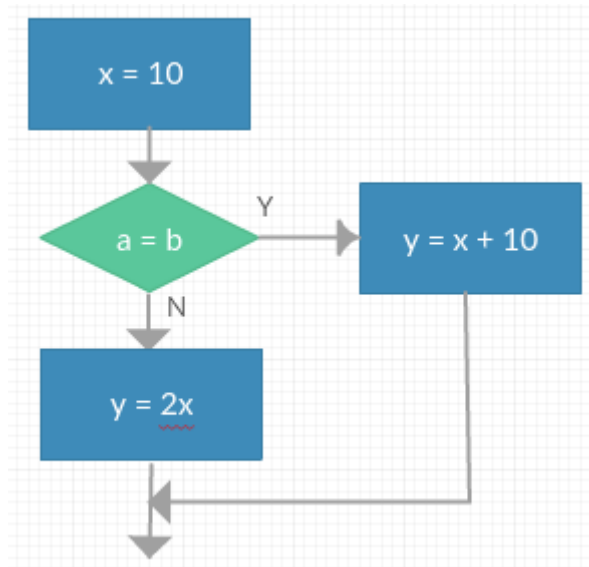


**Question 7**

Not answered

Marked out of 1.20

Given a flowchart of an algorithm:



Select the correct instruction sequence:

Select one or more:

- ☐ `mov dl,10`  
`cmp al,bl`  
`jnz n_label`  
`add dl,10`  
`jmp e_label`  
`n_label:`  
`mov cl,1`  
`shl dl,cl`  
`e_label:`  
`mov dh,dl`
- ☐ `mov dl,10`  
`cmp al,bl`  
`jz n_label`  
`mov cl,1`  
`shl dl,cl`  
`jmp e_label`  
`n_label:`  
`add dl,10`  
`e_label:`  
`mov dh,dl`
- ☐ `mov dl,10`  
`cmp al,bl`  
`jnz n_label`  
`add dl,10`  
`jmp e_label`  
`n_label:`  
`mov cl,1`  
`shr dl,cl`  
`e_label:`  
`mov dh,dl`

```

☐ mov dl,10
    cmp al,bl
    jnz n_label
    add dl,10
    mov dh,dl
    jmp e_label
n_label:
    mov cl,1
    shl dl,cl
e_label:
    mov dh,dl

```

### Question 8

Complete

Marked out of 1.00

Part of computer memory is shown in figure

Address	1D48	1D49	1D4A	1D4B	1D4C	1D4D	1D4E	1D4F
Value	03	7F	F5	2D	5A	12	7B	C0

What is the value of AX register after instruction **MOV AX, [1D4B]** executed

Answer: 2D

### Question 9

Complete

Marked out of 1.00

The following sequence of instructions are executed. What is the correct value of AX, CX, DX at watch point?

MOV AX,0020

MOV CX,0010

MUL CL

watch point:

AX = 020F ▼

DX 0000 ▼

CX = 00FF ▼

**Question 10**

Complete

Marked out of 1.00

Which set of registers are valid for addressing a stack memory location?

Select one or more:

- ☐ DS:SI
- ☒ SS:SP
- ☒ SS:BP
- ☐ SS:BX

**Question 11**

Complete

Marked out of 1.00

In computer, how does the processor serve multiple interrupt request from devices?

Select one:

- ☐ Each device are assigned an interrupt priority, the device with lower priority will be served.
- ☐ Device with higher priority will use interrupt enable flag
- ☒ Each device are assigned an interrupt priority, the device with higher priority will be served.
- ☐ The processor can not process multiple interrupt requests

**Question 12**

Complete

Marked out of 1.00

Given a row of memory image in debug

0AE8:0120 13 96 D0 E0 D0 E0 A2 1E - 99 80 3E 20 99 00 75 24

Initially, AX=BX=CX=DX=0, SI=128

What are value of AX,DX after execution of the following instructions?

MOV EDX, [SI]

MOV EAX, [SI+4]

AX =  ▼

DX =  ▼

**Question 13**

Complete

Marked out of 1.00

Basic functions that a computer can perform including:

Select one or more:

- ☒ Data movement
- ☒ Control
- ☐ Interrupt
- ☒ Data processing
- ☒ Data storage
- ☐ Direct memory access

**Question 14**

Complete

Marked out of 1.00

The following sequence of instructions are executed. What is the correct value of flag bits at watch point?

MOV AX,FFFF

MOV CX,5

MUL CX

watch point:

Overflow flag (OF) =  ▼

Carry flag (CF) =  ▼

**Question 15**

Not answered

Marked out of 1.20

Given a code snippet:

```
int n = 10;  
do {  
    n--;  
} while (n > 0);
```

Which ones are the equivalent logic sequence of instructions in Assembly

Select one or more:

- ☐

```
mov cx, 10  
a_label:  
    dec cx  
    cmp cx, 0  
    jz e_label  
    jmp a_label  
e_label:
```
- ☐

```
mov cx, 10  
a_label:  
    .....  
    loop a_label
```
- ☐

```
mov cx, 10  
a_label:  
    .....  
    dec cx  
    cmp cx, 0  
    jz a_label
```
- ☐

```
mov cx, 10  
a_label:  
    .....  
    dec cx  
    loop a_label
```

**Question 16**

Not answered

Marked out of 1.20

Write mask byte (in hex) to clear bit 2nd, 3rd, 5th of a byte value with AND instruction (LSB is 1st bit).

Answer:

**Question 17**

Complete

Marked out of 1.00

the memory stack area of a program shown in figure

Address	1D50	1D51	1D52	1D53
Value	AF	90	71	DA

The value of SP register is 1D50. What is the value of SP follows the execution of **PUSH SI**

Answer: 90

**Question 18**

Complete

Marked out of 0.50

To clear one or more bits in a byte value, use \_\_\_\_\_ instruction.

Select one:

- ☒ AND
- ☐ XOR
- ☐ OR
- ☐ NOT

**Question 19**

Complete

Marked out of 0.50

The instruction, MOV AX, 0005h belongs to which addressing mode?

Select one:

- ☐ register
- ☐ direct
- ☐ index
- ☒ Immediate

**Question 20**

Complete

Marked out of 1.00

Which are correct about the data registers of IA-32 processors:

Select one or more:

- ☐ Lower halves of the 16-registers can be used as 8-bit data registers: AH,AL,BH,BL,CH,CL,DH,DL
- ☐ Lower halves of the 32-registers can be used as 4 16-bit data registers: AX,BX,CX,DX
- ☐ Higher halves of the 32-bit registers can be used as 16-bit registers: EAH,EAL,EBH,EBL,ECH,ECL,EDH,EDL
- ☒ complete 32-bit registers: EAX, EBX, ECX, EDX

**Question 21**

Not answered

Marked out of 1.00

What are components of Von Neumann, namely IAS computer?

Select one or more:

- ☐ Monitor
- ☐ Memory
- ☐ I/O Equipments
- ☐ Punched card reader
- ☐ Bus
- ☐ CPU

**Question 22**

Complete

Marked out of 1.00

The following sequence of instructions are executed. What is the correct value of flag bits at watch point?

MOV AL,-5

SUB AL,124

watch point:

Overflow flag (OF) =

set



Carry flag (CF) =

set



Zero flag (ZF) =

reset



Sign flag (SF)

set

**Question 23**

Complete

Marked out of 1.00

Enter debug command to fill 256 bytes in data segment starting from 100 with value 0D

Answer: F 100 1FF 0D

**Question 24**

Not answered

Marked out of 0.50

Which are correct action for STOSB string operation if DF is reset (=0)

Select one or more:

- ☐ decrease DI by 1
- ☐ Store 8-bit value from AL into memory location pointed by ES:[DI]
- ☐ increase DI by 1
- ☐ Store 8-bit value from AL into memory location pointed by DS:[SI]

**Question 25**

Complete

Marked out of 1.00

For better speed, in CPU design, engineers make use of the following techniques:

Select one or more:

- ☒ Pipelining
- ☒ Branch prediction
- ☐ Faster CPU internal bus
- ☒ Speculative execution

**Question 26**

Complete

Marked out of 1.00

The following sequence of instructions are executed. What is the correct value of CF and OF at watch point?

MOV AX,FFF6h

MOV CX,1000h

IMUL CX

watch point:

CF=

OF=

**Question 27**

Complete

Marked out of 0.50

Which are correct action for SCASW string operation if DF is set (=1)

Select one or more:

- ☐ decrease DI by 2
- ☒ compare value in AL register with memory location pointed by ES:[DI]
- ☐ compare value in AL register with memory location pointed by DS:[SI]
- ☒ increase DI by 2



**Question 28**

Complete

Marked out of 1.00

Given a row of memory image in debug

0AE8:0120 13 96 D0 E0 D0 E0 A2 1E - 99 80 3E 20 99 00 75 24

SI = 120, DI = 128

Select correct sequence of instructions to subtract words at [DI] from [SI] then store the result at memory location 12A

Step 1: MOV AX, [SI] ▼

Step 2: SUB AX, [DI] ▼

Step 3: MOV BX, 012A ▼

Step 4: MOV [BX], AX ▼

**Question 29**

Complete

Marked out of 1.00

Select correct match for register values at watch points:

MOV AX, 4FCA

ADD AX, DDA9

watch point #1:

ADD AH, F3

watch point #2:

.....

watch point #2: AL = 73 ▼

watch point #1: AH = 30 ▼

**Question 30**

Complete

Marked out of 1.00

Compute the physical address of the next instruction will be execute if instruction pointer is 091D and code segment located at 1FAF

Answer: 2040D

**Question 31**

Complete

Marked out of 1.00

Choose correct features for SRAM and DRAM

DRAM Slower access time, cheaper cost per bit, can manufacture with larger size

SRAM Faster access time, cost more per bit, smaller size

**Question 32**

Complete

Marked out of 1.20

Convert the 32-bit floating point number 44363800 (in hex) to decimal.

Answer: 1144403968

**Question 33**

Complete

Marked out of 1.00

The following sequence of instructions are executed. What is the correct value of flag bits at watch point?

MOV AL, 80

MOV BL, 2

MUL BL

watch point:

Overflow flag (OF) = reset ▼

Carry flag (CF) = reset ▼

**Question 34**

Complete

Marked out of 0.50

Which could be correct ones for the destination operand in a data movement instruction?

Select one or more:

- ☐ memory location
- ☒ all choices are correct
- ☐ immediate data
- ☐ register

**Question 35**

Complete

Marked out of 1.00

The following sequence of instructions are executed. What is the correct value of flag bits at watch point?

```
MOV AL, 0F
```

```
ADD AL, F1
```

watch point:

Carry flag (CF) =  ▼

Zero flag (OF) =  ▼

**Question 36**

Complete

Marked out of 1.00

Memory dump at 1D20:0200 as below:

1D20:0200 00 20 10 5D 55 47 00 90 - 00 10 20 30 40 50 60 70

Given value of registers: DS = 1D20, SI = 200, BX = 202, AX = 0103

Identify correct value of AX register after XLAT instruction is executed.

AL =  ▼

AH =  ▼

**Question 37**

Not answered

Marked out of 1.20

Given a code snippet (ax, bx are none negative integers):

```
if (ax >= bx)
```

```
    ax -=bx;
```

```
else
```

```
    bx -=ax;
```

What is the equivalent logic sequence of instructions in Assembly

Select one:

- ☐

```
cmp ax,bx
jnbe a_label
sub ax,bx
jmp x_label
a_label:
sub bx,ax
x_label:
```
- ☐

```
cmp ax,bx
jb a_label
sub ax,bx
jmp x_label
a_label:
sub bx,ax
x_label:
```
- ☐

```
cmp ax,bx
jbe a_label
sub ax,bx
jmp x_label
a_label:
sub bx,ax
x_label:
```
- ☐

```
cmp ax,bx
ja a_label
sub ax,bx
jmp x_label
a_label:
sub bx,ax
x_label:
```

**Question 38**

Complete

Marked out of 0.50

Which of the following instructions are not valid?

Select one or more:

- ☐ MOV AX, SI
- ☒ MOV AX, [BP+2]
- ☐ MOV SP, SS:[SI+2]
- ☒ MOV DS, B800h

**Question 39**

Complete

Marked out of 0.50

if the location to which the control is to be transferred lies in a segment other than the current one, then the jump instruction is call

Select one:

- ☒ intrasegment direct mode
- ☐ intersegment mode
- ☐ intrasegment mode
- ☐ intrasegment indirect mode

**Question 40**

Complete

Marked out of 0.50

The instruction that supports addition when carry exists is

Select one:

- ☐ ADD
- ☒ ADC
- ☐ DAS
- ☐ SBB

**Question 41**

Not answered

Marked out of 1.20

Convert 0.1015625 to IEEE 32-bit floating point format (1 sign+ 8 exponent + 23 mantissa)

Answer:

**Question 42**

Complete

Marked out of 0.50

The instruction that is used for finding out the codes in case of code conversion problems is

Select one:

- ☐ JCXZ
- ☐ XCHG
- ☒ XLAT
- ☐ XOR

**Question 43**

Complete

Marked out of 1.00

Which statements are correct for HDDs?

Select one or more:

- ☐ Head, Track, Cylinder are key parameters for access data on hard disk
- ☒ Head, Track, Sector are key parameters for access data on hard disk
- ☒ Bits are stored on tracks
- ☐ Bits are store randomly on disk surfaces

**Question 44**

Complete

Marked out of 0.50

Which are correct action for LODSB string operation if DF is reset (=0)

Select one or more:

- ☐ increase SI by 1
- ☒ Load 8-bit value at memory location pointed by ES:[DI] into AL
- ☒ decrease DI by 1
- ☐ Load 8-bit value at memory location pointed by DS:[SI] into AL

**Question 45**

Complete

Marked out of 0.50

To test one bit in a byte value without destructing the byte, use \_\_\_\_\_ instruction.

Select one:

- ☐ AND
- ☒ TEST
- ☐ NOT
- ☐ OR

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# THI Kiến trúc máy tính và hợp ngữ (Thi Chung)

**Bắt đầu vào lúc** Monday, 28 May 2018, 1:10 PM

**State** Finished

**Kết thúc lúc** Monday, 28 May 2018, 2:14 PM

**Thời gian thực hiện** 1 giờ 4 phút

## Câu hỏi 1

Hoàn thành

Đạt điểm 1,00

Consider the following assembly instruction sequence

```
CMP DL, 0
JB  x_label
CMP DL, 9
JA  a_label
ADD DL, 30h
JMP x_label
```

a\_label:

```
CMP DL, 0Fh
JA  x_label
ADD DL, 31h
```

x\_label:

```
MOV AL, DL
```

watch point:

...

Choose correct value of AL register at watch point for different value of DL?

DL=55h

DL=0FFh

DL=10

DL=8

## Câu hỏi 2

Hoàn thành

Đạt điểm 1,00

Select correct match for AX (Decimal) at watch points:

```
MOV AX, 1BC
MOV CL, 2
SHL AX, CL
```

watch point #1:

```
ADD AX, 166
```

watch point #2:

```
SHR AX, CL
```

watch point #3:

```
SHR AX, CL
```

.....

watch point #1:

watch point #2:

watch point #3:



**Câu hỏi 3**

Hoàn thành

Đạt điểm 0,50

if the location to which the control is to be transferred lies in a segment other than the current one, then the jump instruction is called

Select one:

- ☐ intrasegment mode
- ☒ intersegment mode
- ☐ intrasegment indirect mode
- ☐ intrasegment direct mode

**Câu hỏi 4**

Hoàn thành

Đạt điểm 1,00

Structural components of computer include:

Select one or more:

- ☒ System interconnection
- ☐ Interrupt
- ☒ Central processing unit
- ☒ I/O
- ☒ Memory
- ☐ DMA

**Câu hỏi 5**

Hoàn thành

Đạt điểm 0,50

Which could be correct ones for the destination operand in a data movement instruction?

Select one or more:

- ☐ immediate data
- ☐ all choices are correct
- ☒ register
- ☒ memory location

**Câu hỏi 6**

Hoàn thành

Đạt điểm 0,50

the instruction, JMP C008:2000h is an example of

Select one or more:

- ☐ intrasegment mode
- ☒ near jump
- ☐ intersegment jump
- ☒ far jump

**Câu hỏi 7**

Hoàn thành

Đạt điểm 1,00

Given a row of memory image in debug

0AE8:0120 13 96 D0 E0 00 40 08 42 - 99 80 3E 20 99 00 75 24

SI = 120

The following instruction is executed:

MOV EAX, [SI+4]

Assume the value in EAX is a 32-bit floating-point binary, what is the value of EAX in decimal?

Answer:

**Câu hỏi 8**

Hoàn thành

Đạt điểm 1,00

Given a code snippet:

```
int n = 10;  
do {  
    n--;  
} while (n > 0);
```

Which ones are the equivalent logic sequence of instructions in Assembly

Select one or more:

- ☒ `mov cx, 10`  
`a_label:`  
`.....`  
`loop a_label`
- ☐ `mov cx, 10`  
`a_label:`  
`.....`  
`dec cx`  
`cmp cx, 0`  
`jz a_label`
- ☐ `mov cx, 10`  
`a_label:`  
`.....`  
`dec cx`  
`loop a_label`
- ☒ `mov cx, 10`  
`a_label:`  
`dec cx`  
`cmp cx, 0`  
`jz e_label`  
`jmp a_label`  
`e_label:`

**Câu hỏi 9**

Hoàn thành

Đạt điểm 1,00

The following sequence of instructions are executed. What is the correct value of AX, CX, DX at watch point?

```
MOV AX,30  
MOV CX,FFFF  
MUL CX
```

watch point:

CX =

AX =

DX =

**Câu hỏi 10**

Không trả lời

Đạt điểm 0,50

Write mask byte (in hex) to set higher 4 bits in a byte value with OR instruction (LSB is the 1st bit).

Answer:

**Câu hỏi 11**

Hoàn thành

Đạt điểm 0,50

After executing PUSH EAX instruction, the stack pointer

Select one:

- ☐ increment by 1
- ☒ decrements by 4
- ☐ decrement by 1
- ☐ increment by 2

**Câu hỏi 12**

Không trả lời

Đạt điểm 1,00

Given an assembly code copying the memory buffer Buff1 to Buff2:

```
PUSH DS
POP  ES
LEA  SI, Buff1
LEA  DI, Buff2
MOV  CX,20
;--- Start of block
```

cp\_loop:

```
MOV  AL, Byte Ptr [SI]
MOV  Byte Ptr ES:[DI], AL
INC  SI
INC  DI
LOOP cp_loop
```

```
; ---End of block
```

Choose equivalent string operations in place of block

Select one or more:

- ☐ CLD  
cp\_loop:  
MOVSB  
LOOP cp\_loop
- ☐ STD  
cp\_loop:  
MOVSB  
LOOP cp\_loop
- ☐ CLD  
cp\_loop:  
REP MOVSB  
LOOP cp\_loop
- ☐ CLD  
REP MOVSB

**Câu hỏi 13**

Hoàn thành

Đạt điểm 0,50

the instruction that is used as prefix to an instruction to execute it repeatedly until the CX register becomes zero is

Select one:

- ☐ CMPS
- ☐ SCAS
- ☐ CMPS
- ☒ REP

**Câu hỏi 14**

Hoàn thành

Đạt điểm 0,50

Write mask byte (in hex) to clear all the lower 7 bits of a byte value with AND instruction.

Answer:

**Câu hỏi 15**

Không trả lời

Đạt điểm 1,00

Convert -89.2345 to IEEE 32-bit floating point format (1 sign+ 8 exponent + 23 mantissa) in hex

Answer:

**Câu hỏi 16**

Không trả lời

Đạt điểm 1,50

Given a row of memory image in debug

072C:FFF0 00 00 00 01 00 00 2C 07 - 07 01 2C 07 17 72 00 00

SS=072C, SP=FFF8, DS = 072C

Assume the stack now stores two (2) 16-bit parameters and one (1) 16-bit return address in following order: stack top (return address) >> parameter #1 >> parameter #2.

The following sequence of instructions are executed. What is the correct values at watch points?

MOV BP, SP

watch point #1 (BP):

MOV AX, [BP+2]

watch point #2 (AX):

ADD AX, [BP+4]

watch point #3 (AX):

MOV DI, 120

MOV [DI], AX

watch point #1:

watch point #2:

watch point #3:

**Câu hỏi 17**

Hoàn thành

Đạt điểm 0,50

The instruction that subtracts 1 from the contents of the specified register/memory location is

Select one:

- ☒ DEC  
☐ SUB  
☐ SBB  
☐ INC

**Câu hỏi 18**

Không trả lời

Đạt điểm 1,00

Memory dump at 1D20:0200 shown as below:

1D20:0200 00 20 10 5D 55 47 00 90 - 00 10 20 30 40 50 60 70

Given value of registers:

DS = 1D20, ES = 1D20, DI = 20A

The following sequence of instructions are executed:

MOV SI,208h

MOV AX,0040h

MOV CX,000Ah

CLD

REPZ SCASB

watch point:

.....

What is the correct value of AX, SI, DI registers at watch point?

DI =

AX =

SI =

**Câu hỏi 19**

Hoàn thành

Đạt điểm 1,00

What is the meaning of Amdahl's law in processor performance evaluation?

Select one:

- ☐ the cost reduce when moving from single-core to multicore processor
- ☒ the maximum speedup of a multicore processor
- ☐ the potential speedup of a program using multiple processor compared to a single processor
- ☐ the speedup of a multicore processor when increasing system bus speed

**Câu hỏi 20**

Hoàn thành

Đạt điểm 0,50

Which are the correct actions for LODSW string operation if DF is reset (=0)

Select one or more:

- ☐ decrease DI by 2
- ☐ Load 16-bit value at memory location pointed by ES:[DI] into AX
- ☒ increase SI by 2
- ☒ Load 16-bit value at memory location pointed by DS:[SI] into AX

**Câu hỏi 21**

Không trả lời

Đạt điểm 1,00

When many devices of different transmission speed connect to the same bus, the overall system performance suffers. How did the design engineers resolved this:

Select one:

- ☐ PCI Express bus
- ☐ Multiple-Bus hierarchies
- ☐ PCI bus
- ☐ Split system bus into local bus and memory bus

**Câu hỏi 22**

Hoàn thành

Đạt điểm 0,50

the instruction, CMP to compare source and destination operands by

Select one:

- ☐ adding
- ☐ comparing
- ☐ dividing
- ☒ subtracting

**Câu hỏi 23**

Hoàn thành

Đạt điểm 1,00

To balance the super speed of CPU with the slow response of memory, which of the following measures have been made by engineers in system design?

Select one or more:

- ☐ Make use of both on-chip and off-chip cache memory
- ☒ Make wider data bus path
- ☒ Using higher-speed bus and us hierarchy
- ☒ To move data directly by DMA

**Câu hỏi 24**

Hoàn thành

Đạt điểm 1,00

The following sequence of instructions are executed. What is the correct value of AX, DX at watch point?

MOV DL,FF

MOV AL,42

IMUL DL

watch point:

AX = FFBE

DX = 0000

**Câu hỏi 25**

Hoàn thành

Đạt điểm 0,50

In the RCR instruction, the contents of the destination operand undergoes function as

Select one:

- ☐ carry flag is pushed into LSB then MSB is pushed into carry flag
- ☐ overflow flag is pushed into MSB then LSB is pushed into carry flag
- ☒ carry flag is pushed into MSB then LSB is pushed into carry flag
- ☐ auxiliary flag is pushed into LSB then MSB is pushed into carry flag

**Câu hỏi 26**

Hoàn thành

Đạt điểm 0,50

Which could be correct ones for the source operand in an instruction?

Select one or more:

- ☒ immediate data
- ☒ memory location
- ☐ indirect data
- ☒ register

**Câu hỏi 27**

Hoàn thành

Đạt điểm 1,00

Convert the 32-bit floating point number A3358000 (in hex) to decimal.

**Note:**

Result with exponent should be written like (e.g): 1.2345678x10<sup>-13</sup> or 1.2345678x10<sup>13</sup> (no space between digits/characters)

Answer: -9.83913471531x10<sup>-18</sup>

**Câu hỏi 28**

Hoàn thành

Đạt điểm 1,00

Select correct match for register values at watch points:

MOV AX, 152D

ADD AX, 003F

watch point #1:

ADD AH, 10

watch point #2:

.....

watch point  
#2:

AH = 25 ▾

watch point  
#1:

AL = 6C ▾

**Câu hỏi 29**

Hoàn thành

Đạt điểm 0,50

Which are the correct actions for SCASW string operation if DF is set (=1)

Select one or more:

☒ decrease DI by 2☒ compare the value in AX register with 16-bit value at the memory location pointed by ES:[DI] and set/clear flag bits accordingly☐ increase DI by 2☐ compare the value in AX register with 16-bit value at the memory location pointed by DS:[SI] and set/clear flag bits accordingly**Câu hỏi 30**

Hoàn thành

Đạt điểm 1,00

What is the correct value of SI, AL (in hex) at watch point:

01: MOV SI, 300h

02: MOV AL, 10h

03: MOV CX, 7

04: Loop\_label:

05: MOV [SI], AL

06: ADD AL, 10h

07: INC SI

08: LOOP Loop\_label

watch point:

SI 80h ▾

AL  
= 80h ▾**Câu hỏi 31**

Hoàn thành

Đạt điểm 1,00

Select the correct sequence of instructions to compute -1024/128 (all values are in hex).

Step 1: CWD ▾

Step 2: MOV CX, 80 ▾

Step 3: MOV CL, 80 ▾

Step 4: IDIV CL ▾

**Câu hỏi 32**

Hoàn thành

Đạt điểm 1,00

Select correct match for AL and carry flag at watch point #1:

MOV BL, 8C

MOV AL, 7E

ADD AL, BL

watch point #1:

.....

AL Carry  
flag

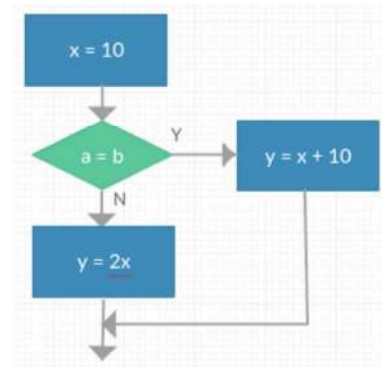


**Câu hỏi 33**

Hoàn thành

Đạt điểm 1,00

Given a flowchart of an algorithm:



Select the correct instruction sequence:

Select one or more:

☐

```
mov dl,10
cmp al,bl
jnz n_label
add dl,10
jmp e_label
```

```
n_label:
mov cl,1
shl dl,cl
e_label:
mov dh,dl
```

☒

```
mov dl,10
cmp al,bl
jnz n_label
add dl,10
mov dh,dl
jmp e_label
```

```
n_label:
mov cl,1
shl dl,cl
e_label:
mov dh,dl
```

☐

```
mov dl,10
cmp al,bl
jnz n_label
add dl,10
jmp e_label
```

```
n_label:
mov cl,1
shr dl,cl
e_label:
mov dh,dl
```

☐

```
mov dl,10
cmp al,bl
jz n_label
mov cl,1
shl dl,cl
jmp e_label
```

```
n_label:
add dl,10
e_label:
mov dh,dl
```

**Câu hỏi 34**

Hoàn thành

Đạt điểm 0,50

After executing the POP EAX instruction, the stack pointer

Select one:

- ☐ decrements by 4
- ☐ decrements by 2
- ☒ increments by 4
- ☐ increment by 1

**Câu hỏi 35**

Hoàn thành

Đạt điểm 0,50

Sign-extend number BF (8-bit binary) to 16-bit. Write result in hex

Answer:

**Câu hỏi 36**

Hoàn thành

Đạt điểm 0,50

Which of the following instructions are not valid?

Select one or more:

- ☒ MOV DS, B800h
- ☐ MOV AX, [BP+2]
- ☒ MOV SP, SS:[SI+2]
- ☐ MOV AX, SI

**Câu hỏi 37**

Hoàn thành

Đạt điểm 1,00

The following sequence of instructions are executed. What is the correct value of flag bits at watch point?

MOV AL, 0F

ADD AL, F1

watch point:

Zero flag (OF) =

Carry flag (CF) =

**Câu hỏi 38**

Hoàn thành

Đạt điểm 1,00

Major structural components of the CPU include:

Select one or more:

- ☒ Registers
- ☒ Arithmetic and Logic Unit
- ☐ Instruction Pointer (PC)
- ☒ Interconnections
- ☒ Control Unit
- ☐ Instruction Register

**Câu hỏi 39**

Hoàn thành

Đạt điểm 1,00

Consider a magnetic disk drive with 8 surfaces, 512 tracks per surface, and 64 sectors per track. Sector size is 1 kB. What is the disk capacity

Answer:

**Câu hỏi 40**

Hoàn thành

Đạt điểm 1,00

What best describe the Spatial and Temporal Locality?

Temporal  
locality

be exploited by keeping recently used instruction and data in cache memory and by exploiting a cache hierarchy

Spatial  
locality

be exploited by moving data between cache and memory more efficient

**Câu hỏi 41**

Hoàn thành

Đạt điểm 1,00

Given a code snippet:

`int ax, bx;``...``if (ax >= bx)``ax -= bx;``else``bx -= ax;`

What is the equivalent logic sequence of instructions in Assembly

Select one:

- ☒ `cmp ax,bx`  
`jl a_label`  
`sub ax,bx`  
`jmp x_label`  
`a_label:`  
`sub bx,ax`  
`x_label:`
- ☐ `cmp ax,bx`  
`jbe a_label`  
`sub ax,bx`  
`jmp x_label`  
`a_label:`  
`sub bx,ax`  
`x_label:`
- ☐ `cmp ax,bx`  
`ja a_label`  
`sub ax,bx`  
`jmp x_label`  
`a_label:`  
`sub bx,ax`  
`x_label:`
- ☐ `cmp ax,bx`  
`jge a_label`  
`sub ax,bx`  
`jmp x_label`  
`a_label:`  
`sub bx,ax`  
`x_label:`

**Câu hỏi 42**

Hoàn thành

Đạt điểm 0,50

Which of the following is not a data copy/transfer instruction?

Select one or more:

- ☒ ADC
- ☐ MOV
- ☐ LEA
- ☒ DAS

[Return to: General ➡](#)

60 câu cấu trúc máy tính và hợp ngữ

1.Loại chương trình chứa mã, dữ liệu và stack trong các segment riêng là?

a.EXE b.Doc c.Com d.ASM

2.Khi nạp một chương trình exe vào bộ nhớ để thực thi, trình nạp lưu địa chỉ của PSP trong các thanh ghi DS ES, địa chỉ của stack trong thanh ghi SS và kích thước của stack trong thanh ghi SP

3.Lệnh POP CX khôi phục word từ nơi mã SP trở tới trong stack vào thanh ghi CX và tăng SP

4.Chỉ dẫn END kết thúc định nghĩa chương trình

5.Phát biểu DB 12 DUP(50) định nghĩa 12 byte được khởi động với giá trị 50

( Toán tử DUP dùng để lặp lại các dữ liệu với số lần quy định. Có

pháp: Count DUP(Các dữ liệu) -> lặp lại các dữ liệu với số lần Count. )

6.Giả sử Intel 8086 ở real mode,offset là 24h,thanh ghi segment chứa 0B500h,tính địa chỉ vật lý

a.0B524h b.0B5024h c.24B5h d.240B5h

7.Một chương trình COM hạn chế trong một SEGMENT và kích thước tối đa là 64K

8.Lệnh để khởi động một thanh ghi với một địa chỉ offset là lệnh

a.PUSH b.MOVZX c.LEA d.MOVSX e. C&D

9.Một địa chỉ OFFSET bị giới hạn tới khoảng cách từ -32768 tới 32767 bye trong phạm vi cùng segment

10.Cờ CF chứa một bit nhớ(0 hoặc 1) từ bit trật tự cao trong các thao tác toán học và một số lệnh dịch và quay.

11.Cờ SF được set theo dấu sau 1 thao tác số học : dương set là 0 âm set là 1.

12.Kí tự Hex cho phím Tab là 09 cho Line feed là A và carriage return là D

Các ký tự điều khiển thường dùng là :

ASCII code (Hex) SYMBOL FUNCTION

7 BEL beep

8 BS backspace

9 HT tab

A LF line feed

D CR carriage return

13.Chức năng\_\_02H\_\_ của ngắt 10h xác định vị trí con trỏ

14.Mạch hỗ trợ nào không được tìm thấy trong hệ thống 8086 ở chế độ min

a.Cache controller b.Clock generator c.Bus controller d.Trang lanch(k0 rở nữa)

15.Cờ D xác định hướng xử lý chuỗi: trái sang phải sử dụng lệnh\_\_CLD\_\_để xoá cờ D, phải sang trái sử dụng lệnh \_\_STD\_\_để set cờ D.

16.Giá trị số dương lớn nhất đối với số có dấu trong thanh ghi 8 bit là\_\_127\_\_

17.Để nhân byte với byte, số bị nhân chứa trong thanh ghi\_\_AL\_\_,và số nhân là 1 byte trong bộ nhớ hoặc thanh ghi, sau khi nhân, tích số được chứa trong thanh ghi\_\_AX\_\_

18.Đối với phép chia, lệnh \_\_DIV\_\_xử lý dữ liệu không dấu, còn lệnh\_\_IDIV\_\_xử lý dữ liệu có dấu

19.Lệnh AAA kiểm tra xem số Hex tận cùng bên phải của AL lớn hơn\_\_9\_\_hoặc cờ A có

\_\_=1\_\_ số Hex tận cùng bên trái trong \_\_AL\_\_

20. Trong hệ thống vi xử lý Bus là: Một nhóm các dây nối các tp trong hệ thống máy tính.Bus đc dùng để truyền địa chỉ,dữ liệu,thông tin điều khiển giữa vi xử lý và bộ nhớ các thiết bị IO.

Truyền Dữ Liệu , Thông Tin

21.Trong hệ thống vi xử lý, trước khi thực hiện chương trình được chứa

trong

a.Trong cổng vào ra b.Các bộ đệm trong vi xử lý c.Trên Bus dữ liệu **d.Trong bộ nhớ bán dẫn**

22.Khi có hàng đợi lệnh chương trình sẽ thực hiện nhanh hơn do:

a.Không mất chu kỳ lấy lệnh từ bộ nhớ

**b.Quá trình lấy lệnh thực hiện đồng thời với quá trình thực hiện lệnh**

c.Quá trình thực hiện lệnh diễn ra nhanh hơn

d.Quá trình lấy lệnh diễn ra nhanh hơn

23.Để truy cập bộ nhớ CPU cung cấp địa chỉ gì cho bộ nhớ

a.Logic **b.Vật lý** c.Độ dời(offset) d.Đoạn(segment)

24.Thanh ghi DX là một thanh ghi

**a.Đa năng** b.Đoạn c.Địa chỉ d.Dữ liệu

25.Nhóm các thanh ghi sau đây đều có thể sử dụng để giữ địa chỉ độ dời khi truy cập bộ nhớ dữ liệu?

a.IP,SP,AH,AL b.CS,DS,ES,SS **c.BX,BP,DI,SI** d.AX,BX,CX,DX

26.Thanh ghi nào được mặc định giữ số đếm trong các lệnh lặp?

a.BX **b.CX** c.AX d.DX

27.Các thanh ghi nào giữ kết quả trong các lệnh nhân chia 16bit?

a.AX và BX b.AX và DI **c.AX và DX** d.AX và CX

28.Cờ Zero(ZF) của CPU 80286 được lặp lên 1 khi:

**a.Kết quả các phép tính bằng 0**

b.Kết quả các phép tính khác 0

c.Kết quả các phép tính lớn hơn 0

d. Kết quả các phép tính nhỏ hơn 0

29.Các khai báo dữ liệu sau, khai báo nào không bị lỗi

a. Xon DB 1,2,3,4h

b.Yes DB 4,7,10,9

c.Rel DB 19,7,6,10,3

**d.Anh DB 9,3,8,7,0 // 1 byte**

Tên biến mảng DB/DW/DD Các giá trị khởi đầu

Ví dụ:

*M1 DB 4,5,6,7,8,9*

30.Trong chế độ địa chỉ chỉ số nền, dữ liệu sử dụng trong lệnh nằm

trong một ô nhớ có địa chỉ bằng

a. Giá trị chứa trong thanh ghi BX hoặc BP

b. Giá trị chứa trong thanh ghi DI hoặc SI

c. Giá trị chứa trong thanh ghi BX hoặc BP cộng với trị chứa trong DI hoặc SI cộng với độ dời

d. Giá trị chứa trong thanh ghi DI hoặc SI cộng với một số độ dời

31. Sau khi thực hiện các lệnh

MOV AH,05

MOV AL,03

XCHG AH,AL

a. AH=03, AL=05 b. AH=AL=03 c. AH=AL=05 d. AH=05, AL=03

32. (k0 rõ)

thì sau khi thực hiện các lệnh

MOV AL,3

LEA BX,LP

XFLAT

sẽ được

a. BX=1000H, AL=27H b. 0000H, AL=27 c. BX=0027h, AL=0

d. BX=1000H, AL=1Bh

33. Giả sử AL=9, AH=7, sau khi thực hiện các lệnh sau AX sẽ có giá trị bằng

ADD AL,AH

DAA

ADD AX,3030H

ADD AL,AH

AAA

a. 0007h b. 0037h c. 3803h d. 3037h

34. Giả sử AX=9, BX=12 sau khi thực thi lệnh CMP AX,BX sẽ có:

a. CF=0, ZF=0 b. CF=0, ZF=1 c. CF=1, ZF=0 d. CF=1, ZF=1

35. Giả sử AH=02, AL=03 sau khi chạy lệnh MUL AH sẽ được:

a. AH=02 b. AH=06 c. AH=0 d. AH=03

36. Giả sử AL chứa mã ASCII của một số từ 0 đến 9 sau lệnh AND

AL,0FH thì

a.AL=0 b.AL là mã BCD của số đó

c.AL vẫn là mã ASCII của số đó d.AL=0FH

37.Để đảo trạng thái các bit trong một thanh ghi có thể

a.XOR nó với 00H b.OR nó với FFH c.AND nó với FFH d.XOR nó với FFH

38.Giả sử AL=35H,CL=4 sau lệnh SHR AL,CL sẽ được

a.AL=5,CL=0 b.AL=3,CL=4 c.AL=3,CL=0 d.AL=5,CL=4

39.Lệnh JPE M chuyển điều khiển chương trình tới nhãn M khi

a.PF=1 b.ZF=0 c.ZF=1 d.PF=0

40.Sau lệnh LOOP các giá trị nào có thể bị thay đổi

a.BX và CF b.BX và ZF c.CX và CF d.CX và ZF

41.Hàm 02 ngắt 21h của Dos là hàm

a.Trả điều khiển về hệ điều hành

b.Hiện một ký tự lên màn hình

c.Hiện một chuỗi ký tự lên màn hình

d.Nhập một ký tự từ bàn phím

42.Bù 2 của số 00101111 là

a.10110111 b.01010100 c.11001000 d.11010001

43.Hàng đợi lệnh cho phép bộ xử lý làm gì

a.Cho qua các lệnh không mong muốn

b.Xử lý nhiều lệnh tại một thời điểm

c.Chờ cho lệnh kế được thực thi

d.Tìm trước và nạp các lệnh

44.Stack segment chứa

a.Bộ nhớ chỉ đọc

b.Dữ liệu được định nghĩa của một chương trình bằng số,và vùng làm việc

c.Các giá trị mà một chương trình cần lưu tạm thời

d.Các lệnh máy để thực thi

45.Ký hiệu nào chỉ ra rằng các ký tự theo sau nó là các chú thích

a.Khoảng trắng b.Dấu phẩy c.Dấu sao d.Dấu chấm phẩy



46.Để chạy từng lệnh trong đoạn chương trình dùng debug, ta dùng lệnh

- a.R Xem or sửa nd thanh ghi
- b.A Dịch một ct ra mã máy
- c.P Chạy từng bước
- d.Q Thoát khỏi ct debug và trở về hệ điều hành

47.Trong một chương trình exe ta phải

- a.Khởi động giá trị cho thanh ghi AX
- b.Khởi động giá trị cho thanh ghi DS
- c.Không cần khởi động giá trị cho DS
- d.Cả ba câu trên đều sai

48.Lệnh **MOVS** mỗi lần di chuyển một byte dữ liệu từ nguồn vào đích, đồng thời tăng hoặc giảm các thanh ghi DI,SI một đơn vị

49.Để đưa nội dung từ công 1234h vào thanh ghi AL,ta dùng lệnh

- a.IN 1234h b.IN AL,1234h c.**MOV DX,1234h và IN AL,DX** d.MOV AL,DX

50.Để điều chỉnh phép trừ 2 số BCD dạng nén, ta dùng lệnh

- a.**DAS** b.AAS c.AAA d.DAA

51.Mục đích của tín hiệu BHE là gì ?

- a.**Cho phép truy cập byte cao của một từ**
- b.Cho phép truy cập byte thấp hoặc word
- c.Cho phép truy cập toàn bộ một word
- d.Cho phép treo bus

52.Tại sao 8086 có bus địa chỉ và dữ liệu được ghép kênh

- a.Để tăng hiệu suất
- b.Cho phép bộ nhớ chậm hơn
- c.Để đơn giản hoá mạch bên ngoài
- d.**Để tiết kiệm số chân của vi xử lý**

53.8086 có bus dữ liệu và địa chỉ được ghép kênh, làm thế nào để phân kênh.

- a.**Mạch chốt** b.Bus transceiver c.Bus controller d.Mạch phát xung clock

54.Một chu kỳ bus của 8086 mất ít nhất 4 chu kỳ xung clock, nếu vi xử lý có tần số xung clock là 4MHz, tốc độ tối đa của bus dữ liệu là :

a.4Mb/s b.4MB/s **c.2MB/s** d.20MB/s

55.Cái gì sau đây không phải là đặc điểm của 8086

a.Hoàn toàn tương thích ngược với 8086

**b.Bộ nhớ vật lý 16MB**

c.Hỗ trợ real mode và protected mode

**d.Các thanh ghi đa dụng 32 bit //16 bit**

56.Protected mode trong 80286 thực hiện để hỗ trợ

a.Các hệ điều hành đa nhiệm

b.Over...processes

c.Bộ nhớ cache

d.....Security

57.Mục đích chính của bộ xử lý 8038

a.Điều khiển bộ nhớ cache

b.truy cập đĩa...nhanh

c.Thực hiện nhanh các thao tác....

d.Tăng bộ nhớ vật lý

58.Để dịch ngược nội dung bộ nhớ ra mã hợp ngữ ta dùng lệnh :

a.A b.R **c.U** d.F

59.Dùng lệnh....để nạp nội dung của tập tin COM vào bộ nhớ ở địa chỉ offset...

a.N 300 **b.I 100** c.W 100 d.P 100

60.Để thi hành lệnh trong debug ta dùng lệnh

a.P b.T c.R d.**Cả a và b**