

1) Instruction Queue is placed in _____ of Intel 8086.

- A) Control and Timing Unit
- B) Execution Unit
- C) Register File
- ☒ D) Bus Interface Unit
- E) Arithmetic Logic Unit

2) _____ is the act of synchronizing two systems that op

- A) Serial communication
- B) Handshaking ?
- C) Transmission
- D) Parallel communication ?
- E) Peripheral interface

3) Which of the followings are interrupt pins found on Intel micro

- I. INTA
- II. INTC
- III. INTQ
- IV. INTR

☒ A) I and IV

B) I, III, IV

C) Only III

4) Which of the following communication architectures are serial?

- I. USB
- II. PCI
- III. PCI Express
- IV. ISA

A) I, II, IV

B) I, II, III

C) I and III

D) Only I

5) Which flag is tested by a conditional interrupt instruction?

A) Interrupt

B) Carry

C) Parity

D) Overflow

6) Regarding SRAM and DRAM, which of the following statements are true?

- I. DRAM is faster than SRAM. -
- II. SRAM is more expensive than DRAM. +
- III. DRAM requires periodical refresh. +
- IV. SRAM consumes more power than DRAM. -

A) II and III

B) I, II, IV

C) Only I

D) I and IV

7) What is the IEEE 754 single precision floating point representation of decimal +10.0?

A) 41200000h

B) C1A00000h

C) 41A00000h

D) C1200000h

8) Which of the following statements is not true when an interrupt occurs?

- I. Flags register contents are pushed on the stack. +
- II. Interrupt flag is set.
- III. Contents of CS and IP are pushed onto the stack. +
- IV. Related ISR is executed.

A) Only II

B) I and III

C) III and IV

D) II and IV

9) Using little endian format, 4321h is to be stored in an 8-bit memory starting at 200h memory address 201h after storing?

A) 34h

B) 43h

C) 12h

D) Empty

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Using the error checking method provided below, detect position of the error

- C1 = XOR of bits (1, 3, 5, 7, 9, 11)
- C2 = XOR of bits (2, 3, 6, 7, 10, 11)
- C4 = XOR of bits (4, 5, 6, 7, 12)
- C8 = XOR of bits (8, 9, 10, 11, 12)

A) Bit-2

B) Bit-4

C) Bit-6

D)

11) What is the corresponding value of -76.5 in nearest even rounding mode?

A) -77

B) -75

C) -78

D)

12) The code below computes the sum of numbers from 1 to N using the for instruction. Which instruction should be inserted into the missing line within the code?

$$\sum_{x=1}^N x = N.(N+1)/2$$

```
ORG 100h  
CALL sum  
RET
```

```
sum PROC  
MOV AL, N  
MOV BL, N  
INC BL  
MUL BL  
missing instruction?  
RET  
sum ENDP
```

N DB 8

A) DEC AL

B) SHR AL, 1

C) SUB AL, 2

DIV AL, 2

13) What is the decimal equivalent of IEEE 754 single precision floating point number 0xBF800000?

A) -20.25

B) -40.125

C) -10.50

14) What is the size of Personal Computer I/O map?

64 KB

16) In 8086, 32-bit addition can be performed by adding low 16-bits of the operand and high 16-bits of the operands using _____ instruction.

- A) ADC - SBB
- B) ADD - ADC
- C) ADC - ADC
- D) ADD - ADD
- E) ADC - ADD

17) What is the IEEE 754 floating point equivalent of $-\infty$?

- A) 10000000011111111111111111111111b
- B) 10000000000000000000000000000000b
- C) 00000000000000000000000000000000b
- ☒ D) 11111111100000000000000000000000b
- E) 11111111111111111111111111111111b

18) It is given that the following code computes factorial of var_N. Then, what is the missing instruction?

```
MOV AX, 1
MOV BX, var_N
MOV CX, var_N
label:
MUL BX
missing instruction?
LOOP label
RET
var_N DW 6
```

- A) INC AX
- B) DEC CX
- C) INC BX

19) Which field of an instruction specifies the addressing mode to be used?

- A) REG
- B) R/M
- C) Direction

20) Assume that CS=1000H, DS=2000H, SS=3000H, and IP=2000H. Then, what is the next instruction executed by the microprocessor?

- ☒ A) 12000H
- B) 22000H
- C) 1000H

21) Which of the following instructions converts any BCD value available in AX register into ASCII equivalent of a BCD code can be obtained by appending $(011)_2$ to left of the BCD value.

- A) AND AX, 07h
- B) OR AX, 0Fh
- C) AND AX, 0Fh
- D) XOR AX, 0Fh
- E) OR AX, 30h

22) Assume that SP=0100H. What is the value of SP after execution of POP AX instruction?

- A) 00FFH
- B) 0101H
- C) 0102H
- D) 00FEH

23) Which of the following communication architectures are parallel?

- I. USB -
- II. PCI +
- III. PCI Express -
- IV. ISA +

- A) I and II
- B) I, II, III
- C) I and III
- D) II and IV

2 G

24) How many (128Mx16) memory device is needed to store 1 G bytes of data?

- A) 1
- B) 16
- C) 2
- D) 8

25) Which of the following connections are common to all memory devices?

- I. Address ✓
- II. Read Control
- III. Write Control
- IV. Data ✓

- A) I, II, IV
- B) I, II, III, IV
- C) Only IV
- D) I, II, III, IV

E) I and IV