**Problems Based on 8086 Architecture**

**1. Intel’s 8086 were launched in the year\_\_\_\_\_.**

a) 1971

b) 1972

c) 1974

d) 1978

Answer: d

**2. Which is the microprocessor comprises?**

a) Register section

b) One or more ALU

c) Control unit

d) All of the mentioned

Answer: d

3**. A 16-bits address bus can generate \_\_\_\_\_addresses.**

a) 32767

b) 25652

c) 65536

d) None of the mentioned

Answer: c

4**. The register of 8086 are\_\_\_\_\_ bits in size.**

a) 8

b) 12

c) 16

d) 20

Answer: c

5**. Which of the following registers are not available in 8086 microprocessors?**

a) General data register

b) Segment registers

c) Pointer and Index register

d) All of the mentioned

Answer: d

**6. Which of the following is a 16-bit register?**

a) AL

b) AX

c) AH

d) All of the mentioned

Answer: b

7**. \_\_\_\_\_\_\_ register is used as a default counter in case of string and loop instructions.**

a) AX

b) BX

c) CX

d) DX

Answer: c

**8. \_\_\_\_\_ register is used as an implicit operand or destination operand in case of arithmetic instructions and Input-Output instructions.**

a) AX

b) BX

c) CX

d) DX

Answer: d

9**. The number of address and data lines of 8086\_\_\_\_\_\_\_\_\_.**

a) 8 and 8

b) 16 and 16

c) 20 and 16

d) 16 and 20

Answer: c

10**. \_\_\_\_\_\_\_ is the most important segment and it contains the actual assembly language instructions to be executed by the microprocessor.**

a) Data segment

b) Code segment

c) Stack segment

d) Extra segment

Answer: b

**11. Base Pointer (BP) contains offset address of \_\_\_\_\_\_\_\_ segment.**

a) Data segment

b) Code segment

c) Stack segment

d) Extra segment

Answer: a

**12. Instruction Pointer (IP) contains offset address of \_\_\_\_\_\_\_\_ segment.**

a) Data segment

b) Code segment

c) Stack segment

d) Extra segment

Answer: b

**13. The Instruction Pointer is \_\_\_\_\_\_ bits in length.**

a) 8 bits

b) 4 bits

c) 16 bits

d) 32 bits

Answer: c

**14. The index register is used to hold \_\_\_\_\_\_\_\_\_\_.**

a) Segment memory

b) Offset memory

c) Offset address

d) Segment address

Answer: c

**15. SI and DI registers is used to store the offset addresses of \_\_\_\_\_\_\_.**

a) CS and DS or ES

b) DS and DS or ES

c) DS or ES and CS

d) DS and ES

Answer: b

**16. Which of the following is not a machine control flag?**

a) Direction flag

b) Interrupt flag

c) Overflow flag -- correct

d) Trap flag

**17. In 8086 the overflow flag is set when\_\_\_\_\_\_.**

a) The sum is more than 16 bit

b) Carry and sign flags are set

c) Signed numbers go out of their range after an arithmetic operation -- correct

d) During subtraction

**18. Direction flag is used with \_\_\_\_.**

a) String instructions -- correct

b) Stack Instructions

c) Arithmetic Instructions

d) Branch Instructions

**19. If there is a carry from lowest nibble during addition, \_\_\_\_\_\_ flag sets.**

a) Carry

b) Auxiliary carry -- correct

c) Over flow

d) Sign

**20. If\_\_\_\_\_\_\_\_\_ flag is set; the processor enters the single step execution mode.**

a) Direction

b) Trap -- correct

c) Interrupt

d) Zero

**21. The Intel 8086 microprocessor is a\_\_\_\_\_ processor.**

a) 8 bits

b) 4 bits

c) 16 bits -- correct

d) 32 bits

Answer: c

**22. What is /are the improvement is in the architecture of 8086 over 8085 architectures**

a) A 16-bit ALU, a set of 16-bit registers

b) Segmented memory addressing

c) Fetched instruction queue for overlapped fetching and execution

d) All of the mentioned

Answer: d

**23. The BIU prefetches the instruction from memory and store them in \_\_\_\_\_.**

a) Queue

b) Register

c) Memory

d) Stack

Answer: a

**24. The 8086-fetch instruction one after another from \_\_\_\_\_\_ of memory.**

a) Data segment

b) Code segment

c) Extra segment

d) Stack segment

Answer: b

**25. Which is not part of execution unit?**

a) ALU

b) Address conversion mechanism

c) Flag register

d) General purpose registers

Answer: b

**26. The length of pre decoding instruction byte queue is \_\_\_\_\_\_\_ bytes long.**

a) 2

b) 4

c) 6

d) 8

Answer: c

**27. If segment address = 1005 H, offset address = 5555 H, then the physical address is­­­­­­­­­­­­­\_\_\_\_\_.**

a) 655A H

b) 155A5 H -- correct

c) 4550 H

d) 56555

Answer: b

**28. In a segment if offset is a 16-bit number, then the maximum possible locations are\_\_\_\_\_.**

a) 1 KB

b) 64 bytes

c) 64 KB -- correct

d) 1 MB

Answer: c

**29. If the size of the segment is 64 kb, what will be the starting and ending off set addresses of it**

a) 0000H to 7FFFH

b) 0000H to FFFFH -- correct

c) 8000H to FFFFH

d) 00000H to FFFFFH

Answer: b

**30. Of the segment addresses are assigned as 0000H to F000H and the offset addresses values are from 0000H to FFFFH, then the physical addresses range from\_\_\_\_\_.**

a) 0000H to FFFFH

b) 00000H to F0000H

c) 00000H to FFFFFH -- correct

d) 0000H to FFF0H

Answer: c