MICROPROCESSOR MCQs

1) What does the microprocessor comprise of?
   a. Register section
   b. One or more ALU
   c. Control unit
   d. All of these

2) What is stored by a register?
   a. data
   b. operands
   c. memory
   d. None of these

3) Accumulator based microprocessor’s examples are:
   a. Intel 8085
   b. Motorola 6809
   c. A and B
   d. None of these

4) A set of registers contains:
   a. data
   b. memory addresses
   c. result
   d. all of these

5) There are primarily two types of registers:
   a. general purpose register
   b. dedicated register
   c. A and B
   d. none of these

6) Name of typical dedicated register is:
   a. PC
   b. IR
   c. SP
   d. All of these

7) BCD stands for:
   a. Binary coded decimal
   b. Binary coded decoded
   c. Both a & b
   d. none of these

8) Which is used to store critical pieces of data during subroutines and interrupts?
   a. Stack
   b. Queue
   c. Accumulator
   d. Data register
9) The data in the stack is called:
   a. Pushing data
   b. Pushed
   c. Pulling
   d. None of these

10) The external system bus architecture is created using ______ architecture:
   a. Pascal
   b. Dennis Ritchie
   c. Charles Babbage
   d. Von Neumann

11) The processor 80386/80486 and the Pentium processor use _____ bits address bus:
   a. 16
   b. 32
   c. 36
   d. 64

12) Which is not the control bus signal?
   a. READ
   b. WRITE
   c. RESET
   d. None of these

13) PROM stands for:
   a. Programmable read-only memory
   b. Programmable read write memory
   c. Programmer read and write memory
   d. None of these

14) EPROM stands for:
   a. Erasable Programmable read-only memory
   b. Electrically Programmable read write memory
   c. Electrically Programmable read-only memory
   d. None of these

15) Each memory location has:
   a. Address
   b. Contents
   c. Both A and B
   d. None of these

16) Which is/are the type/s of microcomputer memory?
   a. Processor memory
   b. Primary memory
   c. Secondary memory
   d. All of these

17) Secondary memory can store____:
   a. Program store code
   b. Compiler
   c. Operating system
   d. All of these
18) Secondary memory is also called____:
   a. Auxiliary  
   b. Backup store  
   c. Both A and B  
   d. None of these  

19) Customized ROMS are called:
   a. Mask ROM  
   b. Flash ROM  
   c. EPROM  
   d. None of these  

20) The RAM, which is created using bipolar transistors, is called:
   a. Dynamic RAM  
   b. Static RAM  
   c. Permanent RAM  
   d. DDR RAM  

21) Which type of RAM needs regular refresh?
   a. Dynamic RAM  
   b. Static RAM  
   c. Permanent RAM  
   d. SD RAM  

22) Which RAM is created using MOS transistors:
   a. Dynamic RAM  
   b. Static RAM  
   c. Permanent RAM  
   d. SD RAM  

23) A microprocessor retries instructions from:
   a. Control memory  
   b. Cache memory  
   c. Main memory  
   d. Virtual memory  

24) The lower red curved arrow shows that CPU places the address extracted from memory location on the__:
   a. Address bus  
   b. System bus  
   c. Control bus  
   d. Data bus  

25) The CPU sends out a ____ signal to indicate that valid data is available on the data bus:
   a. Read  
   b. Write  
   c. Both A and B  
   d. None of these  

26) The CPU removes the ____ signal to complete the memory write operation:
   a. Read  
   b. Write  
   c. Both A and B  
   d. None of these  

27) BIU stands for:
   a. Bus interface unit
   b. Bess interface unit
   c. A and B
   d. None of these

28) EU stands for:
   a. Execution unit
   b. Execute unit
   c. Exchange unit
   d. None of these

29) Which are the three categories of registers?
   a. General-purpose register
   b. Pointer or index registers
   c. Segment registers
   d. All of these

30) Eight of the registers are known as:
   a. General-purpose register
   b. Pointer or index registers
   c. Segment registers
   d. Other register

31) The four index registers can be used for:
   a. Arithmetic operation
   b. Multiplication operation
   c. Subtraction operation
   d. All of these

32) IP Stands for:
   a. Instruction pointer
   b. Instruction purpose
   c. Instruction paints
   d. None of these

33) CS Stands for:
   a. Code segment
   b. Coot segment
   c. Cost segment
   d. Counter segment

34) DS Stands for:
   a. Data segment
   b. Direct segment
   c. Declare segment
   d. Divide segment

35) Which are the segments?
   a. CS: Code segment
   b. DS: data segment
   c. SS: Stack segment
   d. All of these
36) The accumulator is 16 bit wide and is called:
   a. AX
   b. AH
   c. AL
   d. DL

37) How many bits the instruction pointer is wide:
   a. 16 bit
   b. 32 bit
   c. 64 bit
   d. 128 bit

38) How many type of addressing is present in the memory?
   a. Logical address
   b. Physical address
   c. Both A and B
   d. None of these

39) The size of each segment in 8086 is:
   a. 64 kb
   b. 24 kb
   c. 50 kb
   d. 16kb

40) The _______ address of a memory is a 20 bit address for the 8086 microprocessor:
   a. Physical
   b. Logical
   c. Both
   d. None of these

41) The pin configuration of 8086 is available in the_______:
   a. 40 pin
   b. 50 pin
   c. 30 pin
   d. 20 pin

42) DIP stands for:
   a. Deal inline package
   b. Dual inline package
   c. Direct inline package
   d. Digital inline package

43) EA stands for:
   a. Effective address
   b. Electrical address
   c. Effect address
   d. None of these

44) BP stands for:
   a. Bit pointer
   b. Base pointer
   c. Bus pointer
   d. Byte pointer
45) DI stands for:
   a. **Destination index**
   b. Defect index
   c. Definition index
   d. Delete index

46) SI stands for:
   a. Stand index
   b. **Source index**
   c. Segment index
   d. Simple index

47) ALE stands for:
   a. **Address latch enable**
   b. Address light enable
   c. Address lower enable
   d. Address last enable

48) NMI stands for:
   a. **Non mask able interrupt**
   b. Non mistake interrupt
   c. Both
   d. None of these

49) _______ 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

50) The offset of a particular segment varies from _______:  
   a. 000H to FFFH
   b. **0000H to FFFFH**
   c. 00H to FFH
   d. 00000H to FFFFFH

51) Which are the factors of cache memory:
   a. Architecture of the microprocessor
   b. Properties of the programs being executed
   c. Size organization of the cache
   d. **All of these**

52) _______ is usually the first level of memory access by the microprocessor:
   a. **Cache memory**
   b. Data memory
   c. Main memory
   d. All of these

53) Which of the small amount of high-speed memory used to work directly with the microprocessor?
   a. **Cache**
   b. Case
   c. Cost
   d. Coos
54) The cache usually gets its data from the ______ whenever the instruction or data is required by the CPU:
   a. Main memory
   b. Cache memory
   c. All of these

55) Microprocessor references that are available in the cache are called______:
   a. Cache hits
   b. All of these

56) Microprocessor references that are not available in the cache are called________: 
   a. Cache hits
   b. Cache line
   c. Cache misses

57) Which causes the microprocessor to immediately terminate its present activity?
   a. RESET signal
   b. INTERRUPT signal
   c. Both
   d. None of these

58) Which is responsible for all the outside world communication by the microprocessor?
   a. BIU
   b. PIU
   c. TIU
   d. LIU

59) INTR: it implies the_________ signal:
   a. INTERRUPT REQUEST
   b. INTERRUPT RIGHT
   c. INTERRUPT RONGH
   d. INTERRUPT RESET

60) Which of the following are the two main components of the CPU?
   a. Control Unit and Registers
   b. Registers and Main Memory
   c. Control unit and ALU
   d. ALU and bus

61) Different components in the motherboard of a PC unit are linked together by sets of parallel electrical conducting lines. What are these lines called?
   a. Conductors
   b. Buses
   c. Connectors
   d. Consecutives

62) The language that the computer can understand and execute is called
   a. Machine language
   b. Application software
   c. System program
   d. All of the above
63) Which of the following is used as a primary storage device?
   a. Magnetic drum
   b. PROM
   c. Floppy disk
   d. All of these

64) Which of the following memories needs refresh?
   a. SRAM
   b. DRAM
   c. ROM
   d. All of above

65) The memory which is programmed at the time of its manufacturing
   a. PROM
   b. RAM
   c. PROM
   d. EPROM

66) Which of the following memory medium is not used as main memory system?
   a. Magnetic core
   b. Semiconductor
   c. Magnetic tape
   d. Both a and b

67) Registers, which are partially visible to users and used to hold conditional codes, are known as
   a. PC
   b. Memory address registers
   c. General purpose register
   d. Flags

68) One of the main features that distinguish microprocessors from micro-computers is
   a. Words are usually larger in microprocessors
   b. Words are shorter in microprocessors
   c. Microprocessor does not contain I/O devices
   d. Exactly the same as the machine cycle time

69) The first microprocessor built by the Intel Corporation was called
   a. 8008
   b. 8080
   c. 4004
   d. 8800

70) An integrated circuit is
   a. A complicated circuit
   b. An integrating device
   c. Much costlier than a single transistor
   d. Fabricated on a tiny silicon chip

71) Most important advantage of an IC is its
   a. Easy replacement in case of circuit failure
   b. Extremely high reliability
   c. Reduced cost
   d. Low powers consumption
72) Which of the following items are examples of storage devices?
   a. Floppy / hard disks  
   b. CD-ROMs  
   c. Tape devices  
   d. All of the above

73) The width of a processor’s data path is measured in bits. Which of the following are common data paths?
   a. 8 bits  
   b. 12 bits  
   c. 16 bits  
   d. 32 bits

74) Which is the permanent type of memory?
   a. RAM  
   b. ROM  
   c. ERAM  
   d. RW / RAM

75) What type of memory is not directly addressable by the CPU and requires special software called EMS (expanded memory specification)?
   a. Extended  
   b. Expanded  
   c. Base  
   d. Conventional

76) Before a disk is made able to store data. It must be…….
   a. Formatted  
   b. Reformatted  
   c. Addressed  
   d. None of the above

77) Which company is the biggest player in the microprocessor industry?
   a. Motorola  
   b. IBM  
   c. Intel  
   d. AMD

78) A typical personal computer used for business purposes would have _______ of RAM.
   a. 4 KB  
   b. 16 K  
   c. 64 K  
   d. 256 K

78) The word length of a computer is measured in
   a. Bytes  
   b. Millimeters  
   c. Meters  
   d. Bits

79) What are the three decisions making operations performed by the ALU of a computer?
   a. Greater than  
   b. Less than  
   c. Equal to  
   d. All of the above
80) Which part of the computer is used for calculating and comparing?
   a. Disk unit
   b. Control unit
   c. ALU
   d. Modem

81) What goes into and comes out from the computer via its ports?
   a. Data
   b. Bytes
   c. Graphics
   d. Pictures

82) What is the responsibility of the logical unit in the CPU of a computer?
   a. To produce result
   b. To compare numbers
   c. To control flow of information
   d. To do math’s works

83) The secondary storage devices can only store data but they cannot perform
   a. Arithmetic Operation
   b. Logic operation
   c. Fetch operations
   d. Either of the above

84) Which of the following memories allows simultaneous read and write operations?
   a. ROM
   b. RAM
   c. EPROM
   d. None of above

85) Which of the following memories has the shortest access times?
   a. Cache memory
   b. Magnetic bubble memory
   c. Magnetic core memory
   d. RAM

86) A 32 bit microprocessor has the word length equal to
   a. 2 byte
   b. 32 byte
   c. 4 byte
   d. 8 byte

87) An error in computer data is called
   a. Chip
   b. Bug
   c. CPU
   d. Storage device

88) The silicon chips used for data processing are called
   a. RAM chips
   b. ROM chips
   c. Micro processors
   d. PROM chips
89) The metal disks, which are permanently housed in, sealed and contamination free containers are called
a. Hard disks
b. Floppy disk
c. **Winchester disk**  
d. Flexible disk

90) A computer consists of
a. A central processing unit
b. A memory
c. Input and output unit
d. **All of the above**

91) The instructions for starting the computer are housed on
a. Random access memory
b. CD-Rom
c. **Read only memory chip**
d. All of above

92) The ALU of a computer normally contains a number of high speed storage elements called
a. Semiconductor memory
b. **Registers**
c. Hard disks
d. Magnetic disk

93) The first digital computer built with IC chips was known as
a. IBM 7090
b. Apple – 1
c. **IBM System / 360**
d. VAX-10

94) Which of the following terms is the most closely related to main memory?
   a. Non volatile
   b. Permanent
c. Control unit
d. **Temporary**

95) Which of the following is used for manufacturing chips?
   a. Control bus
   b. Control unit
c. Parity unit
d. **Semiconductor**

96) To locate a data item from storage is
   a. Field
   b. Feed
c. Database
d. **Fetch**

97) A directly accessible appointment calendar is feature of a ____ resident package
   a. CPU
   b. **Memory**
c. Buffer
d. ALU
98) The term gigabyte refers to
a. 1024 bytes
b. 1024 kilobytes
**c. 1024 megabytes**
d. 1024 gigabyte

99) A/An ________ device is any device that provides information, which is sent to the CPU
a. Input
b. Output
c. CPU
d. Memory

100) Current SIMs have either _____ or _____ connectors (pins)
a. 9 or 32
b. 30 or 70
c. 28 or 72
d. **30 or 72**

101) Which is the brain of computer:
a. ALU
b. **CPU**
c. MU
d. none of these

102) In which technology microprocessor is fabricated on a single chip?
a. POS
b. **MOS**
c. ALU
d. ABM

103) MOS stands for:
a. **Metal oxide semiconductor**
b. Memory oxide semiconductor
c. Metal oxide select
d. None of these

104) CPU provide output in which form?
a. Computer signals
b. **Digital signals**
c. Metal signals
d. None of these

105) The register section is related to______ of the computer:
a. Processing
b. ALU
c. **Main memory**
d. None of these

106) In Microprocessor one of the operands holds a special register called:
a. Calculator
b. Dedicated
c. **Accumulator**
d. None of these
107) Which register is a temporary storage location?
   a. general purpose register
   b. dedicated register
   c. A and B
   d. none of these

108) PC stands for:
   a. Program counter
   b. Points counter
   c. Paragraph counter
   d. Paint counter

109) IR stands for:
   a. Intel register
   b. In counter register
   c. Index register
   d. Instruction register

110) SP stands for:
   a. Status pointer
   b. Stack pointer
   c. and b
   d. None of these

111) The act of acquiring an instruction is referred as ____ the instruction:
   a. Fetching
   b. Fetch cycle
   c. Both a and b
   d. None of these

112) An instruction on our simple computer consists of one ____ word?
   a. 2-bit
   b. 6-bit
   c. 12-bit
   d. None of these

113) Single address computer instruction contains how many parts?
   a. 2
   b. 3
   c. 4
   d. 5

114) Single address computer instruction has two parts:
   a. The operation code
   b. The operand
   c. A and B
   d. None of these

115) LA stands for:
   a. Load accumulator
   b. Least accumulator
   c. Last accumulator
   d. None of these
116) Which of the following are the flags of a status register?
   a. Over flow flag
   b. Carry flag
   c. Half carry flag
   d. All of these

117) The carry is denoted by:
   a. C
   b. D
   c. S
   d. O

118) The sign is denoted by:
   a. S
   b. D
   c. C
   d. O

119) The zero is denoted by:
   a. Z
   b. D
   c. S
   d. O

120) The overflow is denoted by:
   a. O
   b. D
   c. S
   d. C

121) ________ stores the instruction that is being currently executed:
   a. Instruction register
   b. Current register
   c. Both a and b
   d. None of these

122) In which register instruction is decoded, prepared and ultimately executed:
   a. Instruction register
   b. Current register
   c. Both a and b
   d. None of these

123) The status register is also called the____:
   a. Condition code register
   b. Flag register
   c. A and B register
   d. None of these

124) The area of memory with addresses near zero are called:
   a. High memory
   b. Mid memory
   c. Memory
   d. Low memory
125) The processor uses the stack to keep track of where the items are stored on it by using the:
   a. **Stack pointer register**
   b. Queue pointer register
   c. Both a & b
   d. None of these

126) Stack works on:
   a. LILO
   b. LIFO
   c. FIFO
   d. None of these

127) Which is the basic stack operation?
   a. PUSH
   b. POP
   c. **BOTH A and B**
   d. None of these

128) SP stands for:
   a. **Stack pointer**
   b. Stack pop
   c. Stack push
   d. None of these

129) How many bits are stored by a status register?
   a. 1 bit
   b. 4 bit
   c. 6 bit
   d. 8 bit

130) The 16 bits register is separated into groups of 4 bits, where each group is called:
   a. BCD
   b. **Nibble**
   c. Half byte
   d. None of these

131) A nibble can be represented in ____ form:
   a. Octal digit
   b. Decimal
   c. **Hexadecimal**
   d. None of these

132) The left side of any binary number is called:
   a. Least significant digit
   b. **Most significant digit**
   c. Medium significant digit
   d. low significant digit

133) MSD stands for:
   a. Least significant digit
   b. **Most significant digit**
   c. Medium significant digit
   d. low significant digit
134) ___ is a subsystem that transfers data between computer components inside a computer:  
   a. Chip  
   b. Register  
   c. Processor  
   d. Bus  

135) The external system bus architecture is created using ______ architecture:  
   a. Pascal  
   b. Dennis Ritchie  
   c. Charles Babbage  
   d. Von Neumann  

136) Which bus carries addresses?  
   a. System bus  
   b. **Address bus**  
   c. Control bus  
   d. Data bus  

137) A 16 bits address bus can generate___ addresses:  
   a. 32767  
   b. 25652  
   c. **65536**  
   d. none of these  

138) CPU can read & write data by using:  
   a. Control bus  
   b. **Data bus**  
   c. Address bus  
   d. None of these  

139) Which bus transfers signals from CPU to external devices?  
   a. **Control bus**  
   b. Data bus  
   c. Address bus  
   d. None of these  

140) When memory read or I/O read are active, data is _____ to the processor:  
   a. Input  
   b. Output  
   c. Processor  
   d. None of these  

141) When memory write or I/O read are active data is _____ from the processor:  
   a. Input  
   b. **Output**  
   c. Processor  
   d. None of these  

142) CS stands for:  
   a. Cable select  
   b. **Chip select**  
   c. Control select  
   d. Cable system
143) WE stands for:
   a. Write enable
   b. Wrote enable
   c. Write envy
   d. None of these

144) MAR stands for:
   a. Memory address register
   b. Memory address recorder
   c. Micro address register
   d. None of these

145) MDR stands for:
   a. Memory data register
   b. Memory data recorder
   c. Micro data register
   d. None of these

146) DMA stands for:
   a. Direct memory access
   b. Direct memory allocation
   c. Data memory access
   d. Data memory allocation

147) The ____ places the data from a register onto the data bus:
   a. CPU
   b. ALU
   c. Both A and B
   d. None of these

148) The standard I/O is also called:
   a. Isolated I/O
   b. Parallel I/O
   c. both a and b
   d. none of these

149) The external device is connected to a pin on the processor chip, is called the _____ pin.
   a. Interrupt
   b. Transfer
   c. Both
   d. None of these

150) Which interrupt has the highest priority?
   a. INTR
   b. TRAP
   c. RST6.5
   d. none of these

151) In 8085 name the 16 bit registers?
   a. Stack pointer
   b. Program counter
   c. A & B
   d. none of these
152) Which are the level triggering interrupts?
   a. INTR & TRAP
   b. RST6.5 & RST5.5
   c. RST7.5 & RST6.5
   d. none of these

153) Which stack is used in 8085?
   a) FIFO
   b) LIFO
   c) FILO
   d) none of these

154) What is SIM?
   a. Select Interrupt Mask
   b. Sorting Interrupt Mask
   c. Set Interrupt Mask.
   d. none of these

155) RIM is used to check whether, ______
   a. The write operation is done or not
   b. The interrupt is Masked or not
   c. a & b
   d. none of these

156) In 8086, Non Maskable Interrupts are
   a) Trap
   b) RST6.5
   c) INTR
   d) none of these

157) In 8086 microprocessor, the following has the highest priority amongst all type of interrupts.
   a. NMI
   b. DIV 0
   c. TYPE 255
   d. OVER FLOW

158) The mode/s of DMA is/are:
   a. Single transfer
   b. Block transfer
   c. Burst - block transfer
   d. All of these