

## Computer Architecture and Organization Solved MCQs

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### Computer Architecture and Organization Solved MCQs Questions Answers

**A top-level view of computer function and interconnection**

**1. The processing required for a single instruction is called an**

- A. Instruction processing
- B. Instruction cycle
- C. Memory instruction
- D. None of them

**The right answer is**

- B) Instruction cycle

**2. The fetched instruction is loaded into a register in the processor known as the**

- A. Memory
- B. kernel
- C. instruction register (IR)
- D. memory registers

**Right answer is**

- C) Instruction registers

**3. The processor may perform some arithmetic or logic operation on data is**

- A. data processing
- B. control
- C. Processor
- D. None of them

**Right answer is**

- A) Data processing

**4. The contents of the AC are stored in a location**

- A. 301
- B. 302
- C. 941
- D. 303

**Right answer is**

- C) 941

**5. The collection of paths connecting the various modules is called**

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- A. interconnections
- B. communicating
- C. joining
- D. Interconnection structure

**Right answer is**

- D) Interconnection structure

**7. As with sequential access, direct access involves ----- mechanism**

- A. Read
- B. Write
- C. None
- D. Both a and b

**Right answer is**

- D) both a and b

**8. The mapping function is easily implemented using the**

- A. Registers
- B. Memory
- C. Main memory address
- D. None of them

**Right answer is**

- C) Main memory address

**9. The problem with write-back is that portions of the main memory are**

- A. valid
- B. invalid
- C. access
- D. None of them

**Right answer is**

- B) Invalid

**10. The----- processor can be dynamically configured to support write-through caching.**

- A. Pentium 2
- B. Pentium 3
- C. Pentium 4
- D. None of them

**Right answer is**

- C) Pentium 4

**11. The common form of read-mostly memory**

- A. EPROM
- B. EEPROM
- C. Flash memory
- D. All of these

**Right answer is**

- D) All of these

**12. A more attractive form of read-mostly memory is**

- A. EPROM
- B. EEPROM
- C. Flash memory
- D. None of them

**Right answer is**

- B) EEPROM

**13. A number of chips can be grouped together to form a**

- A. Main memory
- B. Memory bank
- C. Memory
- D. None of them

**Right answer is**

- B) Memory bank

**14. EPROM stands for**

- A. Erasable programmable read-only memory
- B. An electrically programmable read-only memory
- C. Error programmable read-only memory
- D. None of them

**Right answer is**

- A) Erasable programmable read-only memory

**15. SDRAM stands for**

- A. Static dynamic random access memory
- B. System dynamic random access memory
- C. Synchronous dynamic random access memory
- D. Syndrome dynamic random access memory

**Right answer is**

- C) Synchronous dynamic random access memory

**16. There are typically hundreds of sectors per**

- A. Disk

- B. Track
- C. Gaps
- D. Disk data

**Right answer is**

- B) Track

**18. The information can then be scanned at the same rate by rotating the disk at a fixed speed, known as**

- A. Constant angular velocity
- B. Multiple zone recording
- C. Disk data layout
- D. None of them

**Right answer is**

- A) Constant angular velocity

**19. The ----- byte is a special bit pattern that delimits the beginning of the field.**

- A. SYNCH
- B. ID
- C. 512
- D. 600

**Right answer is**

- A) SYNCH

**20. A ----- disk can be removed and replaced with another disk**

- A. Nonremovable
- B. Removable
- C. Single Sided
- D. Double Sided

**Right answer is**

- B) Removable

**21. The set of all the tracks in the same relative position on the platter is referred to as a**

- A. Platter
- B. Tracks
- C. Cylinder
- D. None of them

**Right answer is**

- C) Cylinder

**22. An external device attaches to the computer by a link to an**

- A. Input module
- B. Output module
- C. Both a and b
- D. None of them

**Right answer is**

- C) Both a and b

**22. Suitable for communicating with remote devices**

- A. Communication
- B. Machine-readable
- C. Human readable
- D. None of them

**Right answer is**

- A) Communication

**23. In how many classify external devices**

- A. Communication
- B. Machine-readable
- C. Human readable
- D. All of these

**Right answer is**

- D) All of these

**24. The user provides input through the**

- A. Microphone
- B. keyboard
- C. monitor
- D. none of them

**Right answer is**

- B) Keyboard

**25. An I/O module is often responsible for error detection and for subsequently reporting errors to the**

- A. Processor
- B. Main memory
- C. RAM
- D. None of them

**Right answer is**

- A) processor

**26. The most important system program is the**

- A. MAC

B. Operating system

C. Linux

D. None of them

**Right answer is**

B) Operating system

**27. How many layers of a Computer System**

A. One

B. Two

C. Three

D. Four

**Right answer is**

D) Four

**28. The access function must provide protection of resources and data from ----- users**

A. Unauthorized

B. Authorized

C. End

D. None of them

**Right answer is**

a) Unauthorized

**29. How many types of errors**

A. Internal and external hardware errors

B. Memory errors

C. Device failure

D. All of these

**Right answer is**

D) All of these

**30. Addition proceeds as if the two numbers were unsigned integers**

A. Integers

B. Signed integers

C. Unsigned integers

D. None of them

**Right answer is**

C) Unsigned integers

**31. Starting at any number on the circle, we can add positive k (or subtract negative k) to that number by moving k positions -----**

A. clockwise

- B. anticlockwise
- C. counterclockwise
- D. none of them

**Right answer is**

- a) clockwise

**32. Compared with addition and subtraction, multiplication is a complex operation, whether performed in -----**

- A. software
- B. hardware
- C. both a and b
- D. None of them

**Right answer is**

- C) both a and b

**33. Addition proceeds as if the two numbers were unsigned integers**

- A. Integers
- B. Signed integers
- C. Unsigned integers
- D. None of them

**Right answer is**

- C) Unsigned integers

**34. Starting at any number on the circle, we can add positive k (or subtract negative k) to that number by moving k positions -----**

- A. clockwise
- B. anticlockwise
- C. counterclockwise
- D. none of them

**Right answer is**

- A) clockwise

**35. Compared with addition and subtraction, multiplication is a complex operation, whether performed in -----**

- A. software
- B. hardware
- C. both a and b
- D. None of them

**Right answer is**

- C) both a and b

**36. We have seen that addition and subtraction can be performed on numbers in two's complement notation by treating them as**

in two's complement notation by treating them as

- A. integers
- B. signed integers
- C. unsigned integers
- D. none of them

**Right answer is**

C) unsigned integers

**37. The division is somewhat more ----- than multiplication**

- A. complex
- B. easy
- C. different
- D. harder

**Right answer is**

A) complex

**38. The operation is specified by a binary code, known as the**

- A. operation code or opcode
- B. source operand reference
- C. result operand reference
- D. None of them

**Right answer is**

A) operation code or opcode

**39. In most cases, the next instruction to be fetched immediately follows the**

- A. Back instruction
- B. current instruction
- C. next instruction
- D. none of them

**Right answer is**

B) current instruction

**40. During instruction execution, an instruction is read into an ----- in the processor**

- A. Memory buffer register (MBR)
- B. Address register (AD)
- C. instruction register (IR)
- D. index register (IR)

**Right answer is**

C) instruction register (IR)

**41. These operations are performed primarily on data in**



- A. Random access memory
- B. main memory
- C. processor registers
- D. none of them

**Right answer is**

- C) processor registers

**42. The various types of data upon which operations are performed is called**

- A. [Data types](#)
- B. Operation repertoire
- C. Instruction format
- D. None of them

**Right answer is**

- A) data type

**43. We have seen that addition and subtraction can be performed on numbers in twos complement notation by treating them as**

- A. integers
- B. signed integers
- C. unsigned integers
- D. none of them

**Right answer is**

- C) unsigned integers

**44. The division is somewhat more ----- than multiplication**

- A. complex
- B. easy
- C. different
- D. harder

**Right answer is**

- A) complex

**45. The most common addressing techniques**

- A. Stack
- B. Direct
- C. Indirect
- D. All of these

**Right answer is**

- D) All of these

**46. Different opcodes will use different**

- A. addressing modes
- B. mode fields
- C. effective address
- D. none of them

**Right answer is**

- A) addressing modes

**47. The disadvantage of the immediate addressing is that the size of the number is restricted to the size of the**

- A. Modes
- B. Operand field
- C. address field
- D. registers

**Right answer is**

- C) address field

**48. The most common uses of displacement addressing**

- A. Relative addressing
- B. Base-register addressing
- C. Indexing
- D. All of these

**Right answer is**

- D) All of these

**49. For this addressing method, indexing is not used.**

- A. Offset
- B. Preindex
- C. Postindex
- D. None of them

**Right answer is**

- A) Offset

**50. The processor reads an instruction from memory (register, cache, main memory).**

- A. Fetch instruction
- B. Fetch data
- C. Process data
- D. Interpret instruction

**Right answer is**

- A) Fetch instruction

**51. ————— may be used only to hold data and cannot be employed in the calculation of an operand address.**

- A. Arithmetic register
- B. Data registers
- C. Index register
- D. None of them

**Right answer is**

- B) Data registers

**52. Condition code bits are collected into one or more-----**

- A. Registers
- B. Address
- C. Flags
- D. Codes

**Right answer is**

- A) registers

**53. Contains a word of data to be written to memory or the word most recently read is**

- A. Program counter
- B. Instruction register
- C. Memory address register
- D. Memory buffer register

**Right answer is**

- D) memory buffer register

**54. Interpret the opcode and perform the indicated operation.**

- A. Fetch
- B. Execute
- C. Interpret
- D. None of them

**Right answer is**

- B) Execute

**55. These determine the functions to be performed by the processor and its interaction with memory.**

- A. Operation Performed
- B. Operands used
- C. Execution sequencing
- D. None of them

**Right answer is**

- A) operation performed

**56. The use of a large set of registers should decrease the need to access**

- A. Operations
- B. Memory
- C. Register
- D. None of them

**Right answer is**

B) memory

**57. A \_\_\_\_\_ is defined to be the time it takes to fetch two operands from registers, perform an ALU operation, and store the result in a register.**

- A. Machine instruction
- B. Machine cycle
- C. Instruction register
- D. Register operation

**Right answer is**

B) Machine cycle

**58. The stages of the pipeline are an instruction\_\_\_\_\_ and an \_\_\_\_\_ that executes the instruction**

- A. fetch
- B. execute/memory
- C. both a and b
- D. none of them

**Right answer is**

C) both a and b

**59. For many years, the general trend in computer architecture and organization has been toward increasing processor complexity**

- A. Instruction
- B. Addressing Modes
- C. Specialized registers
- D. All of these

**Right answer is**

D) All of these

