CODERINDEED

MULTIPLE CHOICE QUESTIONS - COA

1. In Reverse Polish notation, expression A*B+C*D is written as
(A) AB*CD*+ (B) A*BCD*+ (C) AB*CD+* (D) A*B*CD+
Ans: A

2. SIMD represents an organization that _____.
(A) refers to a computer system capable of processing several programs at the same time.
(B) represents organization of single computer containing a control unit, processor unit and a memory unit.
(C) includes many processing units under the supervision of a common control unit
(D) none of the above.
Ans: C

3. Floating point representation is used to store
(A) Boolean values (B) whole numbers (C) real integers (D) integers
Ans: C

4. Suppose that a bus has 16 data lines and requires 4 cycles of 250 nsecs each to transfer data. The bandwidth of this bus would be 2 Megabytes/sec. If the cycle time of the bus was reduced to 125 nsecs and the number of cycles required for transfer stayed the same what would the bandwidth of the bus?
(A) 1 Megabyte/sec (B) 4 Megabytes/sec (C) 8 Megabytes/sec (D) 2 Megabytes/sec
Ans: D

5. Assembly language
(A) uses alphabetic codes in place of binary numbers used in machine language
(B) is the easiest language to write programs
(C) need not be translated into machine language
(D) None of these
Ans: A

6. In computers, subtraction is generally carried out by
(A) 9's complement (B) 10's complement (C) 1's complement (D) 2's complement **Ans:** D

7. The amount of time required to read a block of data from a disk into memory is composed of seek time, rotational latency, and transfer time. Rotational latency refers to (A) the time its takes for the platter to make a full rotation
(B) the time it takes for the read-write head to move into position over the appropriate track
(C) the time it takes for the platter to rotate the correct sector under the head
(D) none of the above **Ans:** A

8. What characteristic of RAM memory makes it not suitable for permanent storage?
(A) too slow (B) unreliable (C) it is volatile (D) too bulky **Ans:** C

9. Computers use addressing mode techniques for _____.
(A) giving programming versatility to the user by providing facilities as pointers to memory counters for loop control
(B) to reduce no. of bits in the field of instruction
(C) specifying rules for modifying or interpreting address field of the instruction
(D) All the above
Ans: D

10. The circuit used to store one bit of data is known as
(A) Register (B) Encoder (C) Decoder (D) Flip Flop
Ans: D

11. (2FAOC) 16 is equivalent to
(A) (195 084) 10 (B) (001011111010 0000 1100) 2 (C) Both (A) and (B) (D) None of these
Ans: B

12. The average time required to reach a storage location in memory and obtain its contents is called the
(A) seek time (B) turnaround time (C) access time (D) transfer time
Ans: C

13. Which of the following is not a weighted code?
(A) Decimal Number system (B) Excess 3-cod
(C) Binary number System (D) None of these
Ans: B

14. The idea of cache memory is based
(A) on the property of locality of reference (B) on the heuristic 90-10 rule
(C) on the fact that references generally tend to cluster (D) all of the above
Ans: A

15. Which of the following is lowest in memory hierarchy? (A) Cache memory (B) Secondary memory (C) Registers (D) RAM (E) None of these
Ans (B)

16. The addressing mode used in an instruction of the form ADD X Y, is
(A) Absolute (B) indirect (C) index (D) none of these
Ans: C

17. If memory access takes 20 ns with cache and 110 ns with out it, then the ratio (cache uses a 10 ns memory) is
(A) 93% (B) 90% (C) 88% (D) 87%
Ans: B

18. In a memory-mapped I/O system, which of the following will not be there?
(A) LDA (B) IN (C) ADD (D) OUT

Ans: A

19. In a vectored interrupt.
(A) the branch address is assigned to a fixed location in memory.
(B) the interrupting source supplies the branch information to the processor through an interrupt vector.
(C) the branch address is obtained from a register in the processor
(D) none of the above
Ans: B

20. Von Neumann architecture is
(A) SISD (B) SIMD (C) MIMD (D) MISD
Ans: A

21. The circuit used to store one bit of data is known as
(A) Encoder (B) OR gate (C) Flip Flop (D) Decoder
Ans: C

22. Cache memory acts between
(A) CPU and RAM (B) RAM and ROM (C) CPU and Hard Disk (D) None of these
Ans: A

23. Write Through technique is used in which memory for updating the data
(A) Virtual memory (B) Main memory
(C) Auxiliary memory (D) Cache memory
Ans: D

24. Generally Dynamic RAM is used as main memory in a computer system as it
(A) Consumes less power (B) has higher speed
(C) has lower cell density (D) needs refreshing circuitary
Ans: B

25. In signed-magnitude binary division, if the dividend is (11100) 2 and divisor is (10011) 2 then the result is
(A) (00100) 2 (B) (10100) 2 (C) (11001) 2 (D) (01100) 2
Ans: B

26. Virtual memory consists of
(A) Static RAM (B) Dynamic RAM
(C) Magnetic memory (D) None of these
Ans: A

27. In a program using subroutine call instruction, it is necessary
(A) initialise program counter (B) Clear the accumulator
(C) Reset the microprocessor (D) Clear the instruction register
Ans: D

28. A Stack-organised Computer uses instruction of
(A) Indirect addressing (B) Two-addressing (C) Zero addressing (D) Index addressing
Ans: C

29. If the main memory is of 8K bytes and the cache memory is of 2K words. It uses associative mapping. Then each word of cache memory shall be
(A) 11 bits (B) 21 bits (C) 16 bits (D) 20 bits
Ans: C

30 A-Flip Flop can be converted into T-Flip Flop by using additional logic circuit
(A) n TQD =• (B) T D = (C) D = T . Q n (D) n TQD =⊕
Ans: D

31. Logic X-OR operation of (4ACO) H & (B53F) H results
(A) AACB (B) 0000 (C) FFFF (D) ABCD
Ans: C

32. When CPU is executing a Program that is part of the Operating System, it is said to be in (A) Interrupt mode (B) System mode (C) Half mode (D) Simplex mode
Ans: B

33. An n-bit microprocessor has
(A) n-bit program counter (B) n-bit address register
(C) n-bit ALU (D) n-bit instruction register
Ans: D

34. Cache memory works on the principle of
(A) Locality of data (B) Locality of memory
(C) Locality of reference (D) Locality of reference & memory
Ans: C

35. The main memory in a Personal Computer (PC) is made of
(A) cache memory. (B) static RAM
(C) Dynamic Ram (D) both (A) and (B) .
Ans: D

36. In computers, subtraction is carried out generally by
(A) 1's complement method (B) 2's complement method
(C) signed magnitude method (D) BCD subtraction method
Ans: B

37. PSW is saved in stack when there is a
(A) interrupt recognised (B) execution of RST instruction
(C) Execution of CALL instruction (D) All of these
Ans: A

38. The multiplicand register & multiplier register of a hardware circuit implementing booth's algorithm have (11101) & (1100). The result shall be
(A) (812) 10 (B) (-12) 10 (C) (12) 10 (D) (-812) 10
Ans: A

39. The circuit converting binary data in to decimal is
(A) Encoder (B) Multiplexer (C) Decoder (D) Code converter
Ans: D

40. A three input NOR gate gives logic high output only when
(A) one input is high (B) one input is low
(C) two input are low (D) all input are high
Ans: D

41. n bits in operation code imply that there are _____ possible distinct operators (A) 2n (B) 2n (C) n/2 (D) n2
Ans: B

42. _____ register keeps tracks of the instructions stored in program stored in memory.
(A) AR (Address Register) (B) XR (Index Register)
(C) PC (Program Counter) (D) AC (Accumulator)
Ans: C

43. Memory unit accessed by content is called
(A) Read only memory (B) Programmable Memory
(C) Virtual Memory (D) Associative Memory
Ans: D

44. 'Aging registers' are
(A) Counters which indicate how long ago their associated pages have been referenced.
(B) Registers which keep track of when the program was last accessed.
(C) Counters to keep track of last accessed instruction.
(D) Counters to keep track of the latest data structures referred.
Ans: A

45 The instruction 'ORG O' is a
(A) Machine Instruction. (B) Pseudo instruction.
(C) High level instruction. (D) Memory instruction.
Ans: B

46 Translation from symbolic program into Binary is done in
(A) Two passes. (B) Directly (C) Three passes. (D) Four passes.
Ans: A

47 A floating point number that has a O in the MSB of mantissa is said to have

(A) Overflow (B) Underflow (C) Important number (D) Undefined
Ans: B

48 The BSA instruction is
(A) Branch and store accumulator (B) Branch and save return address
(C) Branch and shift address (D) Branch and show accumulator
Ans: B

49 State whether True or False.
(i) Arithmetic operations with fixed point numbers take longer time for execution as compared to with floating point numbers.
Ans: True.

(ii) An arithmetic shift left multiplies a signed binary number by 2. **Ans: False.**

50 Logic gates with a set of input and outputs is arrangement of
(A) Combinational circuit (B) Logic circuit (C) Design circuits (D) Register
Ans: A

51. MIMD stands for
(A) Multiple instruction multiple data (B) Multiple instruction memory data
(C) Memory instruction multiple data (D) Multiple information memory data
Ans: A

52 A k-bit field can specify any one of
(A) 3k registers (B) 2k registers
(C) K2 registers (D) K3 registers
Ans: B

53 The time interval between adjacent bits is called the
(A) Word-time (B) Bit-time (C) Turn around time (D) Slice time
Ans: B

54 A group of bits that tell the computer to perform a specific operation is known as
(A) Instruction code (B) Micro-operation (C) Accumulator (D) Register
Ans: A

55 The load instruction is mostly used to designate a transfer from memory to a processor register known as
(A) Accumulator (B) Instruction Register
(C) Program counter (D) Memory address Register
Ans: A

56 The communication between the components in a microcomputer takes place via the address and
(A) I/O bus (B) Data bus (C) Address bus (D) Control lines

Ans: B

57 An instruction pipeline can be implemented by means of
(A) LIFO buffer (B) FIFO buffer (C) Stack (D) None of the above
Ans: B

58 Data input command is just the opposite of a
(A) Test command (B) Control command (C) Data output (D) Data channel
Ans: C

59 A microprogram sequencer
(A) generates the address of next micro instruction to be executed.
(B) generates the control signals to execute a microinstruction.
(C) sequentially averages all microinstructions in the control memory.
(D) enables the efficient handling of a micro program subroutine.
Ans: A

60 . A binary digit is called a
(A) Bit (B) Byte (C) Number (D) Character
Ans: A

61 A flip-flop is a binary cell capable of storing information of
(A) One bit (B) Byte (C) Zero bit (D) Eight bit
Ans: A

62 The operation executed on data stored in registers is called
(A) Macro-operation (B) Micro-operation
(C) Bit-operation (D) Byte-operation
Ans: B

63 MRI indicates
(A) Memory Reference Information. (B) Memory Reference Instruction.
(C) Memory Registers Instruction. (D) Memory Register information
Ans: B

64 Self-contained sequence of instructions that performs a given computational task is called
(A) Function (B) Procedure (C) Subroutine (D) Routine
Ans: A

65 Microinstructions are stored in control memory groups, with each group specifying a (A) Routine
(B) Subroutine (C) Vector (D) Address
Ans: A

66 An interface that provides a method for transferring binary information between internal storage and external devices is called
(A) I/O interface (B) Input interface (C) Output interface (D) I/O bus

Ans: A

67 Status bit is also called
(A) Binary bit (B) Flag bit (C) Signed bit (D) Unsigned bit
Ans: B

68 An address in main memory is called
(A) Physical address (B) Logical address (C) Memory address (D) Word address
Ans: A

69 If the value V(x) of the target operand is contained in the address field itself, the addressing mode is
(A) immediate. (B) direct. (C) indirect. (D) implied.
Ans: B

70 can be represented in a signed magnitude format and in a 1's complement format as (A) 111011 & 100100 (B) 100100 & 111011
(C) 011011 & 100100 (D) 100100 & 011011
Ans: A