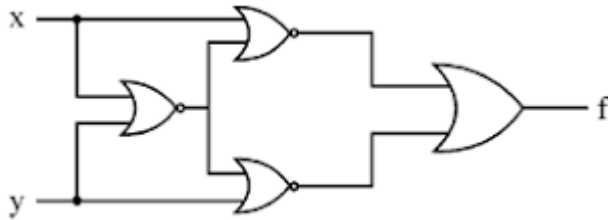


- The bus used to connect the monitor to the CPU is _____
 - PCI bus
 - Memory bus
 - SCSI bus
 - Rambus
- The main advantage of multiple bus organisation over a single bus is _____
 - Reduction in the number of cycles for execution
 - Increase in size of the registers
 - Better Connectivity
 - None of the mentioned
- The most efficient method for translating arithmetic expressions into machine language instructions is using
 - Prefix notation
 - infix notation
 - postfix notation
 - none of the above
- A byte addressable computer has a memory capacity of 2^m Kbytes and can perform 2^n operations. An instruction involving 3 operands and one operator needs a maximum of
 - $3m$ bits
 - $3m + n$ bits
 - $m + n$ bits
 - $3m + n + 30$ bits
- Which of the following logic expressions is incorrect ?
 - $1 \oplus 0 = 1$
 - $1 \oplus 1 \oplus 0 = 1$
 - $1 \oplus 1 \oplus 1 = 1$
 - $1 \oplus 1 = 0$
- The Simplified form of a Boolean equation for the following truth table is
 - $F = yz' + y'z$
 - $F = x'z + xz'$
 - $F = xy' + x'y$
 - $F = X'z + xz' + xyz$
- Which of the following logic operations is performed by the following given combinational circuit ?



- a. EXCLUSIVE-OR
- b. NAND

- c. EXCLUSIVE-NOR
- d. NOR

8. What registers are significantly incremented and decremented respectively for the transmission of each byte by Direct Memory Access (DMA) ?

- a. Address Register & Byte Count Register
- b. Control Register & Byte Count Register
- c. Transmitter Register & Byte Count Register
- d. Status- Register & Byte Count Register

9. Where is the operation code of an instruction get transferred for the determination of sequences required in executing the operations?

- a. Instruction Register
- b. Accumulator Register
- c. Status Register
- d. Temporary Register

10. How many memory cycles should the microprocessor undergo for an execution of instructions, especially the instruction include the address of the operand?

- a. 2 memory cycles
- b. 4 memory cycles
- c. 8 memory cycles
- d. any number depending upon the number of operands in the instruction

11. . Which of the following requires a device driver?

- a) Register
- b) Cache
- c) Main memory
- d) Disk

12. More than one word are put in one cache block to

- (a) exploit the temporal locality of reference in a program
- (b) exploit the spatial locality of reference in a program
- (c) reduce the miss penalty
- (d) none of the above

13. Increasing the RAM of a computer typically improves performance because:

- (a) Virtual memory increases
- (b) Fewer page faults occur
- (c) Larger RAMs are faster
- (d) Fewer segmentation faults occur

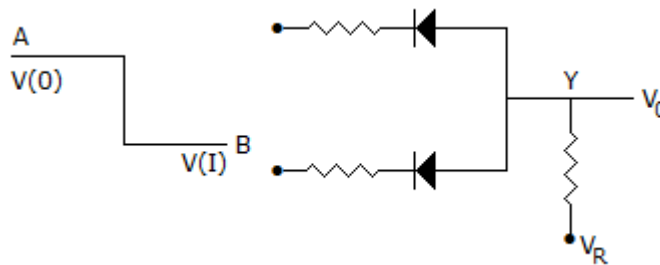
14. Microkernel design imposes a uniform
A. Process B. Program C. Interface D. System
15. Kernel mode of operating system runs when mode bit is
A. 1 B. 0 C. x D. undefined.
16. A direct method of deadlock prevention is to prevent the occurrence of a
A) Mutual Exclusion C) Hold and Wait
B) Preemption D) Circular Wait
17. Input transfers are done in advance and output transfers are done after sometimes in which of these technique?
A. Spooling B. Buffering C. Swapping D. Paging
18. Less-privileged mode in the mode of processor execution normally associated with the operating system is often referred to as the mode.
A) System mode B) Control mode C) Kernel mode D) User mode
19. A binary semaphore
A. has the values one or zero C. is essential to binary computers
B. is used only for synchronization D. is used only for mutual exclusion
- 20) A scheduling algorithm is fair
A. if no process faces starvation.
B. if a process is starved, detect it and run it with high priority
C. if it uses semaphores
D. only if a queue is used for scheduling
- 21) Which of the following is also known as Double buffering?
A. anticipated buffering C. buffer swapping
B. circular buffering D. swapping buffering
- 22) is the ability of a system to continue functioning in the event of partial system failure.
A. fault avoidance C. fault detection
B. fault tolerance D. fault recovery
23. How many entries will be in the truth table of a 3 input NAND gate ?
A.3 B.6 C. 8 D.9
24. What is a digital-to-analog converter?

- A. It takes the digital information from an audio CD and converts it to a usable form.
- B. It allows the use of cheaper analog techniques, which are always simpler.
- C. It stores digital data on a hard drive.
- D. It converts direct current to alternating current.

25. Digital circuit can be made by the repeated use of

- A. OR gates
- B. NAND gates
- C. NOT gates
- D. None of the above

26. The circuit in the given figure is a gate.



- A. positive logic OR gate
- B. negative logic AND gate
- C. negative logic OR gate
- D. positive logic AND gate

27. In Boolean algebra, the bar sign (-) indicates

- A. OR operation
- B. NOT operation
- C. AND operation
- D. None of the above

28. Karnaugh map is also known as

- A. veitch diagram
- B. virtual diagram
- C. Venn diagram
- D. logic diagram

29. An OR gate has 4 inputs. One input is high and the other three are low. The output is

- A. Low
- B. High
- C. alternately high and low
- D. may be high or low depending on relative magnitude of inputs

30. Decimal number 10 is equal to binary number

- A. 1110
- B. 1010
- C. 1001
- D. 1000

31. Which flip-flop plays a vital role by functioning as the basic building block of a ripple counter?

- a. S-R flip-flop
- b. J-K flip-flop
- c. D flip-flop
- d. T flip-flop

32. Teleprinters....

- (A) are used for printing at remote locations, not for input.

- (B) offer both high-speed operation and a variety of formatting controls.
- (C) have a printer for output and a keyboard for input
- (D) are same as teletypes.

33. The amount of uncertainty in a system of the symbol is called.

- (A) bandwidth
- (B) entropy
- (C) loss
- (D) quantum

34. Buffering is....

- (A) the process of temporarily storing the data to allow for small variation in device speeds.
- (B) a method to reduce cross-talks
- (C) storage of data within the transmitting medium until the receiver is ready to receive
- (D) a method to reduce the routing overhead

35. A combination of hardware and software, which provides facilities sending and rationing of information between computer devices

- (A) Network
- (B) Peripheral
- (C) Expansion slot
- (D) Digital device

36. LAN, WAN and MAN are computer networks covering different are Their first alphabets L, W and M respectively stand for

- (A) Local, Wide and Metropolitan
- (B) Long, Wireless and Metropolitan
- (C) Local, world and Middle
- (D) Least, Wireless and Maximum

37. A parity bit is :

- (A) used to indicate upper case letters
- (B) the last bit in a byte
- (C) the first bit in a byte
- (D) use to detect errors

38. The first computer network of the world is.....

- (A) I net
- (B) NSF net
- (C) Arpanet
- (D) V net

39. Synchronous protocols.

- (A) transmit characters one at a time.
- (B) allow faster transmission than asynchronous protocols do.
- (C) are generally used by personal computers.
- (D) all of these

40. Which of the following is not a characteristic of the hub architecture of Arc net?

- (A) Directionalized transmission
- (B) Alternative routing

(C) Zero insertion loss amplifier

(D) RIM port isolation

41. In the X MODEM protocol, the sender waits for what character from the receiver before beginning transmission?

(A) WACK

(B) ACK

(C) RVL

(D) NAK

42. How many layers are in the TCP/IP model?

A. 4 layers

B. 5 layers

C. 6 layers

D. 7 layers

43. The Internet is an example of

A. Cell switched network

B. circuit switched network

C. Packet switched network

D. All of above

44. Fiber optics posses following properties

a) Immune electromagnetic interference

b) Very less signal attenuation

c) Very hard to tap

d) All of the above

45. This is not a application layer protocol

a) HTTP

b) SMTP

c) FTP

d) TCP

46. The number of objects in a Web page which consists of 4 jpeg images and HTML text is

a) 4

b) 1

c) 5

d) None of the above

47. WPA2 is used for security in

a) ethernet

b) bluetooth

c) wi-fi

d) None of the above

48. Password-based authentication can be divided into two broad categories: _____ and _____.

A) fixed; variable

B) time-stamped; fixed

C) fixed; one-time

D) none of the above

49. _____ tag is an extension to HTML that can enclose any number of JavaScript statements.

A. <SCRIPT>

B. <BODY>

C. <HEAD>

D. <TITLE>

50. JPEG format is useful when _____

a) there are so many colors in the picture

b) there are not so many colors in the picture

c) we want to show more brightness

d) when we want to show haziness