

DIGITAL ELECTRONICS Questions and Answers pdf

1. In which of the following base systems is 123 not a valid number?

- (a) Base 10
- (b) Base 16
- (c) Base 8
- (d) Base 3

Ans: d

2. Storage of 1 KB means the following number of bytes

- (a) 1000
- (b) 964
- (c) 1024
- (d) 1064

Ans: c

3. What is the octal equivalent of the binary number:

10111101

- (a) 675
- (b) 275
- (c) 572
- (d) 573

Ans: b

4. Pick out the CORRECT statement:

- (a) In a positional number system, each symbol represents the same value irrespective of its position
- (b) The highest symbol in a position number system has a value equal to the number of symbols in the system
- (c) It is not always possible to find the exact binary
- (d) Each hexadecimal digit can be represented as a sequence of three binary symbols.

Ans: c

5. The binary code of $(21.125)_{10}$ is

- (a) 10101.001
- (b) 10100.001
- (c) 10101.010
- (d) 10100.111

Ans: a

6. A NAND gate is called a universal logic element because

- (a) it is used by everybody
- (b) any logic function can be realized by NAND gates alone
- (c) all the minimization techniques are applicable for optimum NAND gate realization
- (d) many digital computers use NAND gates.

Ans: b

7. Digital computers are more widely used as compared to analog computers, because they are
- (a) less expensive
 - (b) always more accurate and faster
 - (c) useful over wider ranges of problem types
 - (d) easier to maintain.

Ans:c

8. Most of the digital computers do not have floating point hardware because
- (a) floating point hardware is costly
 - (b) it is slower than software
 - (c) it is not possible to perform floating point addition by hardware
 - (d) of no specific reason.

Ans:a

9. The number 1000 would appear just immediately after
- (a) FFFF (hex)
 - (b) 1111 (binary)
 - (c) 7777 (octal)
 - (d) All of the above.

Ans:d

10. $(1(10101)_2)$ is
- (a) $(37)_{10}$
 - (b) $(69)_{10}$
 - (c) $(41)_{10}$
 - (d) $-(5)_{10}$

Ans:a

11. The number of Boolean functions that can be generated by n variables is equal to
- (a) 2^n
 - (b) 2^{2^n}
 - (c) 2^{n-1}
 - (d) -2^n

Ans:b

12. Consider the representation of six-bit numbers by two's complement, one's complement, or by sign and magnitude: In which representation is there overflow from the addition of the integers 011000 and 011000?
- (a) Two's complement only
 - (b) Sign and magnitude and one's complement only
 - (c) Two's complement and one's complement only
 - (d) All three representations.

Ans:d

13. A hexadecimal odometer displays F 52 F. The next reading will be

- (a) F52E
- (b) G52F
- (c) F53F
- (d) F53O.

Ans:d

14. Positive logic in a logic circuit is one in which

- (a) logic 0 and 1 are represented by 0 and positive voltage respectively
- (b) logic 0 and, -1 are represented by negative and positive voltages respectively
- (c) logic 0 voltage level is higher than logic 1 voltage level
- (d) logic 0 voltage level is lower than logic 1 voltage level.

Ans:d

15. Which of the following gate is a two-level logic gate

- (a) OR gate
- (b) NAND gate
- (c) EXCLUSIVE OR gate
- (d) NOT gate.

Ans:c

DIGITAL ELECTRONICS Interview Questions and Answers ::

16. Among the logic families, the family which can be used at very high frequency greater than 100 MHz in a 4 bit synchronous counter is

- (a) TTLAS
- (b) CMOS
- (c) ECL
- (d) TTLLS

Ans:c

17. An AND gate will function as OR if

- (a) all the inputs to the gates are "1"
- (b) all the inputs are '0'
- (c) either of the inputs is "1"
- (d) all the inputs and outputs are complemented.

Ans:d

18. An OR gate has 6 inputs. The number of input words in its truth table are

- (a) 6
- (b) 32
- (c) 64
- (d) 128

Ans:c

19. A debouncing circuit is

- (a) an astable MV

- (b) a bistable MV
- (c) a latch
- (d) a monostable MV.

Ans:c

20. NAND. gates are preferred over others because these

- (a) have lower fabrication area
- (b) can be used to make any gate
- (c) consume least electronic power
- (d) provide maximum density in a chip.

Ans:b

21. In case of OR gate, no matter what the number of inputs, a

- (a) 1 at any input causes the output to be at logic 1
- (b) 1 at any input causes the output to be at logic 0
- (c) 0 any input causes the output to be at logic 0
- (d) 0 at any input causes the output to be at logic 1.

Ans:a

22. The fan put of a 7400 NAND gate is

- (a) 2TTL
- (b) 5TTL
- (c) 8TTL
- (d) 10TTL

Ans:d

23. Excess-3 code is known as

- (a) Weighted code
- (b) Cyclic redundancy code
- (c) Self-complementing code
- (d) Algebraic code.

Ans:c

24. Assuming 8 bits for data, 1 bit for parity, 1 start bit and 2 stop bits, the number of characters that 1200 BPS communication line can transmit is

- (a) 10 CPS
- (b) 120 CPS
- (c) 12CPS
- (d) None of the above.

Ans:c

25. Indicate which of the following three binary additions are correct?

- I. $1.1011 + 1010 = 10101$
- II. $1010 + 1101 = 10111$
- III. $1010 + 1101 = 11111$

- (a) I and II

- (b) II and III
- (c) III only
- (d) II and III

Ans:d