

Practice test questions

Class: FYIT

Subject: Digital Electronics

1. What does the circle on the clock input of a J-K flip-flop mean?
 - a) Level enabled
 - b) Positive edge triggered
 - c) negative edge triggered
 - d) Level triggered
2. The flip-flops which have not any invalid states are _____
 - a) S-R, J-K, D
 - b) S-R, J-K, T
 - c) J-K, D, S-R
 - d) J-K, D, T
3. Which of the following represents a number of output lines for a decoder with 4 input lines?
 - a) 16
 - b) 15
 - c) 17
 - d) 18
4. ALU stands for _____
 - a) Arithmetic logic unit
 - b) Application logic unit
 - c) Array logic unit
 - d) Array level unit
5. How many inputs will a decimal-to-BCD encoder have?
 - a) 4
 - b) 10
 - c) 8
 - d) 16
6. How is an encoder different from a decoder?
 - a) The output of an encoder is a binary code for 1-of-N input
 - b) The output of a decoder is a binary code for 1-of-N input
 - c) The output of an encoder is a binary code for N-of-1 output
 - d) The output of a decoder is a binary code for N-of-1 output
7. In digital logic, a counter is a device which _____
 - a) Counts the number of outputs
 - b) Stores the number of times a particular event or process has occurred
 - c) Stores the number of times a clock pulse rises and falls

- d) Counts the number of inputs
8. What is the maximum possible range of bit-count specifically in n-bit binary counter consisting of 'n' number of flip-flops?
- a) 0 to 2^n
 - b) 0 to $2^n + 1$
 - c) 0 to $2^n - 1$
 - d) $2n$
9. Ripple counters are also called _____
- a) SSI counters
 - b) Asynchronous counters
 - c) Synchronous counters
 - d) VLSI counters
10. The full form of SIPO is _____
- a) Serial-in Parallel-out
 - b) Parallel-in Serial-out
 - c) Serial-in Serial-out
 - d) Serial-In Peripheral-Out
11. A shift register that will accept a parallel input or a bidirectional serial load and internal shift features is called as?
- a) Tristate
 - b) End around
 - c) Universal
 - d) Conversion
12. How can parallel data be taken out of a shift register simultaneously?
- a) Use the Q output of the first FF
 - b) Use the Q output of the last FF
 - c) Tie all of the Q outputs together
 - d) Use the Q output of each FF
13. How many numbers systems are used in digital electronics?
- a) 1
 - b) 3
 - c) 2
 - d) 4
14. In logical gate if output is high when both the inputs are high, this is the property of ____.
- a) OR gate
 - b) AND gate
 - c) NOT gate
 - d) NAND gate

15. “ output is high when both the inputs are low”. This is the property of which logic gate.
a) OR gate
b) AND gate
c) NAND gate
d) X-OR gate
16. The base of decimal number system is ____.
a) 2
b) 8
c) 16
d) 10
17. The radix of octal number system is ____.
a) 2
b) 8
c) 16
d) 10
18. $(15)_{10} = (?)_2$
a) 1110
b) 1010
c) 1011
d) 1111
19. Gray code is also called as ____
a) Unit distance code
b) Ex-3 code
c) ASCII code
d)
20. How many symbols are used in Octal number system?
a) 5
b) 6
c) 7
d) 8
21. NAND & NOR gates are called as _____.
a) Derived gates
b) Universal gates
c) Other gates
d) General gates
22. For SOP form equations, which logic gates are used.
a) AND, OR, NOT
b) NAND, NOR X-OR
c) NOR, NAND, X-NOR

- d) AND, NAND, NOR
23. In K-map min-terms are represented by____.
- a) 0
 - b) 1
 - c) 2
 - d) 3
24. In K-map max-terms are represented by____.
- a) 1
 - b) 0
 - c) 2
 - d) 4
25. For obtaining multiplication of two numbers, which gate is used.
- a) OR
 - b) NOR
 - c) NAND
 - d) AND
26. Which IC is used for performing addition of two 4-bit numbers?
- a) 7483
 - b) 7486
 - c) 7404
 - d) 7432
27. How many IC's are required for constructing Excess-3 adder?
- a) 4
 - b) 3
 - c) 2
 - d) 5
28. How many outputs are expected from comparator circuit?
- a) 2
 - b) 3
 - c) 4
 - d) 1
29. In BCD subtractor which complement method is used?
- a) 1's
 - b) 2's
 - c) 9's
 - d) 4's
30. EX-OR gate is used for obtaining ____complement.
- a) 2's
 - b) 9's
 - c) 10's
 - d) 1's