Mid Semester Examination 2020, BCA Sem-II (2019-2022)

Time: 1 hour
Full marks: 20
Each question carries 1 point
* Required

1. Email address *

2. Name *

3. Class roll no. *

4. University roll no. *

All questions are compulsory

5. 1. A combinational circuit is one in which the output depends on the _____. * 1 point

Mark only one oval.

- Input combination at any time
- Input combination and the previous output
- Present output and previous output
- Input combination at that time and the previous input combination

6. 2. Using K- map, the simplified expression for function F(A,B,C,D) = ∑m (0,2,8,10) is * 1 point

Mark only one oval.

- A'B'
- B'C'
- B'D'
- C'D'

7. 3. 4 to 1 MUX will produce _____. * 1 point

Mark only one oval.

- 4 outputs
- 3 outputs
- 2 outputs
- 1 output

8. 4. How is the decimal number 10 represented in its BCD form? * 1 point

Mark only one oval.

- 001010
- 0010000
- 01010
- 1010

9. 5. Which of the following are the building blocks of encoders? * 1 point

Mark only one oval.

- NAND Gate
- AND Gate
- NOT Gate
- OR Gate

10. 6. How many types of Latches are there? * 1 point

Mark only one oval.

- 4
- 2
- 5
- 3

11. 7. How many valid entries are there in the truth table of the SR flip flop? * 1 point

Mark only one oval.

- 3
- 1
- 2
- 4

12. 8. HIGH output can be can be produced by AND logic gate through which of the following input values? * 1 point

Mark only one oval.

- At least one input is HIGH
- At least one input is LOW
- All inputs are LOW
- All inputs are HIGH

13. 9. Which is the basic logic gate whose output is the complement of the input? * 1 point

Mark only one oval.

- Comparator
- OR Gate
- AND Gate
- INVERTER Gate

14. 10. The absorption law of boolean algebra states that * 1 point

Mark only one oval.

- (x+y)= xy
- x+xy= x
- xy+y= x
- None of the above

15. 11. What is the sum of octal numbers 71 and 36 * 1 point

Mark only one oval.

- 123
- 127
- 213
- 345

16. 12. What is 2's complement of binary number 101100010110? * 1 point

Mark only one oval.

- 111111111111
- 101010101010
- 010011101010
- 010011101001

17. 13. x+y=y+x is * 1 point

Mark only one oval.

- Inverse property
- Commutative law
- Associative law
- Identity law

18. 14. Which is the first operator precedence in evaluating Boolean algebra? * 1 point

Mark only one oval.

- AND
- Parenthesis
- OR
- NOT

19. 15. Don't care conditions can be used for simplifying Boolean algebra * 1 point

Mark only one oval.

- Registers
- Terms
- K- map
- Latches

20. 16. Adding the two BCD numbers 1001+ 1000= * 1 point

Mark only one oval.

- 10001
- 00010111
- 00010001
- 11010000

21. 17. What is a trigger pulse? * 1 point

Mark only one oval.

- A pulse that reuses the cycle of operation
- A pulse that prevents a cycle of operation
- A pulse that starts a cycle of operation
- None of the above

22. 18. What are synchronous or clocked and asynchronous or unclocked types of? * 1 point

Mark only one oval.

- Sequential circuit
- Combinational circuit
- Parallel circuit
- Serial circuit

23. 19. If A, B, C are the inputs of a full adder then the carry is given by * 1 point

Mark only one oval.

- A OR B OR (A AND B) C
- A XOR B XOR (A XOR B) AND C
- (A AND B) OR (A AND B) C
- A AND B OR (A OR B) AND C

24. 20. If A & B is the input of a subtractor then the borrow will be * 1 point

Mark only one oval.

- A OR B
- A' * B
- A AND B
- A * B'