

MCQ questions for Digital Electronics II

1. The resolution of an n bit DAC with a maximum input of 5 V is 5 mV. The value of n is

- A. 8
- B. 9
- C. 10
- D. 11

2. An 8 bit DAC has a full scale output of 2 mA and full scale error of $\pm 0.5\%$. If input is 10000000 the range of outputs is

- A. 994 to 1014 μA
- B. 990 to 1020 μA
- C. 800 to 1200 μA
- D. none of the above

3. The basic storage element in a digital system is

- A. flip flop
- B. counter
- C. multiplexer
- D. encoder

4. A 12 bit ADC is used to convert analog voltage of 0 to 10 V into digital. The resolution is

- A. 2.44 mV
- B. 24.4 mV
- C. 1.2 V
- D. none of the above

5. Quantization error occurs in

- A. D/A converter
- B. A/D converter
- C. both D/A and A/D converter.
- D. neither D/A nor A/D converter

6. In which of these does thermionic emission occur?

- A. LED
- B. LCD
- C. VF display
- D. None

7. Assertion (A): R-2R ladder type DAC has higher speed of operation than weighted resistor DAC

Reason (R): R-2R ladder type DAC uses only two different values of resistor network uses many different values of resistors

- A. Both A and R are correct and R is correct explanation of A
- B. Both A and R are correct but R is not correct explanation of A
- C. A is true, R is false
- D. A is false, R is true

8. RAM can be expanded to

- A. increase word size
- B. increase word number
- C. either increase word size or increase word number
- D. none of the above

9. Which one of the following is correct?

- A. RAM is a volatile memory but ROM is non-volatile memory
- B. RAM is non-volatile memory but ROM is volatile memory
- C. Both ROM and RAM are volatile but in ROM data is not lost when power is switched off
- D. Both ROM and RAM are non-volatile but in RAM data is lost when power is switched off.

10. Which of them radiates emission?

- A. LED only
- B. LCD only
- C. Both LED and LCD
- D. Neither LED nor LCD.

11. Which multivibrator can be used as a clock timer?

- A. Astable multivibrator
- B. Bistable multivibrator
- C. Any of the above
- D. None of the above

12. Dynamic memory cells are constructed using

- A. FETs
- B. MOSFETs
- C. Transistors
- D. Flip flops

13. Which of the- following display consumes least amount of power?

- A. LCD
- B. LED
- C. Fluorescent display
- D. All display consume same power.

14. A binary ladder network D/A converter requires

- A. resistors of one value only
- B. resistors of many different values
- C. resistors of two different values
- D. none of the above.

15. The advantages of flash memory over EEPROM are

- A. higher density
- B. lower cost
- C. both higher density and lower cost
- D. none of the above.

16. Which material is generally used for LED?

- A. Compounds of silica
- B. Compounds of gallium
- C. Compounds of phosphorus
- D. Compounds of sulphur.

17. When all the seven segments of a display are energized, the number shown is

- A. 0
- B. 1
- C. 7
- D. 8

18. Schmitt trigger is used for wave shaping.

- A. True
- B. False.
- Ç. Can't say.
- D. None of these.

19. Monostable multivibrator is called one-shot or single-shot circuit because it

- A. can be used once
- B. can be used single and not with other circuits.
- C. always returns by itself to its single stable state
- D. changes to quasistable for a fixed period of time upon receipt of triggering signal.

20. A flip-flop circuit is

- A. monostable
- B. bistable
- C. multistable
- D. unstable

21. Consider the following statements Timer 555 can be used as

monostable multivibrator

bistable multivibrator

astable multivibrator

Which of the above statements are correct?

- A. 1 and 2
- B. 1 and 3
- C. 2 and 3
- D. 1, 2, 3

22. Consider the following two

Statements 1: stable multivibrator can be used for generating square wave.

Statements 2 : stable multivibrator can be used for storing binary information.

- A. only statement 1 is correct
- B. only statement 2 is correct
- C. both statements are correct
- D. both the statements 1 and 2 are not correct.

23. A Charge Couple Device (CCD) is a

- A. RAM
- B. sequential accessed memory
- C. content addressable memory
- D. read only memory

24. In magnetic film memory, the memory element consists of

- A. plated wires
- B. superconductive material
- C. nickel iron alloy
- D. doped aluminium.

25. In RAM, all the information can be obtained at the output with

- A. minimum time delay
- B. unequal time delay
- C. nearly identical time delay
- D. maximum time delay