

## Computer Arithmetic Question & Answers

1) A shift register can be used for?

- a. Serial to parallel conversion
- b. Parallel to serial conversion
- c. Digital delay line
- d. All of the above
- e. None of the above

**Answer = d**

**Explanation:** Shift registers can have both parallel and serial inputs. These are often configured as serial - in - parallel- out or parallel - in - serial - out.

2) Semiconductor memory is-

- a. Somewhat large than the magnetic core memory
- b. A non-volatile memory
- c. Somewhat slower than magnetic core memory
- d. All of the above
- e. None of these

**Answer = b**

**Explanation:** Semiconductor memory is an electronic storage device often used as computer memory. Examples of semiconductor memory are: ROM, flash memory, magnetoresistive random-access memory (MRAM)

3) Which of the following is a universal gate?

- a. AND
- b. EX-OR
- c. OR
- d. NAND

**Answer = d**

4) The logic 1 in the positive logic system is represented by?

- a. Zero voltage
- b. Lower voltage level
- c. Higher voltage level
- d. Negative voltage
- e. None of the above

**Answer = c**

**Explanation:** The logic 1 is represented by higher voltage while 0 is represented as low voltage.

5) Which function -positive logic is equivalent to OR function in negative logic?

- a. NOT
- b. OR
- c. AND
- d. NOR
- e. None of the above

**Answer = c**

**Explanation:** AND function performs as OR in negative logic.

6) Which of the following logic expressions is wrong?

- a.  $1+0=1$
- b.  $1+1=0$
- c.  $1+0+1=1$
- d.  $1+1+1=1$
- e. None of the above

**Answer = c**

**Explanation:**  $1+0 = 1$  again this result is added to 1 as  $1+1$  which is equal to 0 with carrying 1 but not equal to 1.

7) A Combination logic circuit that is used when it is desired to send data from two or more source through a single transmission line is known as-

- a. Decoder
- b. Encoder

- c. Multiplexer
- d. Demultiplexer
- e. None of the above

**Answer = c**

8) The m-bit parallel adder consists of-

- a. (m+1) full adders
- b. m/2 full adders
- c. m-1 full adders
- d. m full adders
- e. None of the above

**Answer = d**

9) A logic circuit which is used to change a BCD number into an equivalent decimal number is-

- a. Decoder
- b. Encoder
- c. Multiplexer
- d. Code converter
- e. None of the above

**Answer = a**

**Explanation:** Decoder is used to convert the BCD numbers into decimal.

10) Which of the following property is true in the context of Well-Formed Formula(WFF)?

- a. Each letter is a term
- b. If x and y are terms then  $x = y$  is a formula
- c. If P is a formula then  $\neg p$  is a formula
- d. All of the above

**Answer = b**