VIVA VOCE

Q1. Explain what is an inverter?

An inverter is a logic gate whose output is the inverse or complement of its input.

Q2. Explain what are the universal logic gates?

Universal gate is a gate that can perform all the basic logical operations such as NAND and NOR gates.

Q3. Explain what is the specialty of NAND and NOR gates?

The specialty of NAND and NOR gates is that they are universal gates and can perform all the basic logical operations.

Q4. Explain why NAND-NAND realization is preferred over AND-OR realization?

NAND-NAND realization needs only one type of gate(NAND), that minimizes IC package counter.

Q5. Explain why is a two-input NAND gate called universal gate?

NAND gate is called universal gate because any digital system can be implemented with the NAND gate. Sequential and combinational circuits can be constructed with these gates because element circuits like flip-flop can be constructed from two NAND gates connected back-to-back. NAND gates are common in hardware because they are easily available in the ICs form. A NAND gate is in fact a NOT-AND gate. It can be obtained by connecting a NOT gate in the output of an AND gate.