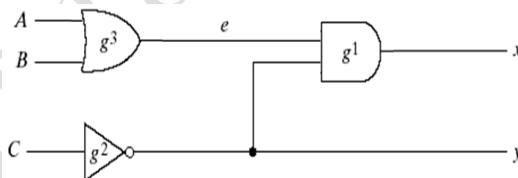


Unit2 – Logic Family

Pat B

1. Define logic family. List the various characteristics of logic family
2. Explain the diode transistor logic
3. Explain the resistor transistor logic
4. Explain IIL logic family and show the merits and demerits.
5. Explain NOR and OR gate construction using ECL. Also give the characteristics of ECL family.
6. Design an open collector TTL NAND gate logic.
7. With circuit schematic, explain the operation of a two port TTL NAND gate with totem-pole output.
8. Explain the operation of enhancement type MOSFET with suitable diagram and draw its characteristics
9. Explain in detail the working of N channel depletion MOSFET with transfer and drain characteristics.
10. With neat sketch explain the circuit diagram of CMOS NOR gate.
11. With neat sketch explain the circuit diagram of CMOS NAND gate
12. Give the syntax for VHDL architecture declaration.
13. Write the HDL program for the given circuit



14. What are the main components of a VHDL description?