# ANALOG AND DIGITAL INTEGRATED CIRCUITS QUSTION BANK

## UNIT V: Sequential Logic Circuits

### 2 Mark Questions:

1. What is an SR flip-flop and how does it function?
2. Explain the operation of a JK flip-flop.
3. Define a T flip-flop and its typical use in digital circuits.
4. Describe the D flip-flop and its application.
5. What is a master/slave flip-flop and how does it work?
6. How is a clock signal used in sequential circuits?
7. Explain the concept of state minimization in sequential circuits.
8. What is state assignment in the context of sequential circuits?
9. Describe the basic operation of ripple counters.
10. What is a ring counter and how is it used in digital systems?
11. Define the types of registers and their basic functions.
12. How does a serial-in serial-out (SISO) register operate?
13. Explain the function of a parallel-in parallel-out (PIPO) register.
14. What is a universal shift register and its features?
15. Describe the function and operation of a counter in sequential logic circuits.