

### **III Sem**

#### **Unit 4 Counter**

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1. What is difference between asynchronous counter and synchronous counter?
2. Explain two bit ripple up counter using negative and positive edge triggered flip flop
3. Explain two bit ripple down counter using negative and positive edge triggered flip flop
4. Implement 3 bit OR 4 bit ripple (asynchronous) counter using D flip flop.
5. Design following asynchronous counter using T flip and J-K Flip flop.
  - I. Mod 6
  - II. Mod 9
  - III. Mod 10
6. Design synchronous 3 bit up counter using J-K flip flop.
7. Design synchronous 3 bit down counter using J-K flip flop.