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Digital Design Project #7: Latches and Flip-flops



Submission form revision September 5, 2025

| I am submitting my own work, and | I accept that penalties will be assessed again | | | | ainst me if I submit work that isn't mine. Asst. Signature | | | | Point Scale 4: Exemplary 3: Complete 2: Incomplete 1: Minor effort 0: Not submitted | | |
|--|--|----|----|----|---|----------|----|--|---|--------|--|
| Circle one column below and modify earned scores accordingly | | | | | | | | | | | |
| Weeks Early / Late | -3 | -2 | -1 | 0 | | 1 | 2 | 3 | 4 | 5+ | |
| Requirements Points | +12 | +8 | +4 | 0 | - | -5 | | 0 -15 | -20 | -25 | |
| Challenges Points | +3 | +2 | +1 | 0 | - | 1 | -2 | -3 | -4 | -5 | |
| Requirements | | | | Wt | Pt | Pt Score | | Possible | Earned | | |
| 1. Implement a NAND basic | cell | | | 1 | | | | | | | |
| 2. Implement a NOR basic cell | | | | 1 | | | | 52 | | | |
| 3. Design a D-latch | | | | 2 | | | | | | | |
| 4. PIPO register | | | | 2 | | | | | | | |
| 5. PISO register | | | | 3 | | | | Modify earned scores by submiss week according to table above | | | |
| 6. SIPO register | | | | 2 | | | | week accordin | ig to table | above. | |
| 7. Homework problems | | | | 2 | | | | | | | |
| Challenges | | | | | | | | Possible | E | arned | |
| 1. Barrel Shifter | | | | 3 | | | | | | | |
| | | | | | | | | 12 | | | |
| | | | | | | | | | | | |