**Self-Assessment 3-10**

10. Using the modified LMC described in section III-C and the following mailbox values, answer the question below:

|  |  |
| --- | --- |
| **Mailboxes** | **Data** |
| **:** | **:** |
| **:** | **:** |
| 20 | 40 |
| **:** | **:** |
| 30 | 50 |
| **:** | **:** |
| 40 | 60 |
| **:** | **:** |
| 50 | 70 |
| **:** | **:** |

What are the data that would be loaded for each of the following functions?

a. LOAD IMMEDIATE 30 or 5130  
b. LOAD DIRECT 30 or 5030   
c. LOAD INDIRECT 30 or 5230

**Answer**

1. This instruction loads the address portion of the instruction into the calculator. Thus, the data loaded is 30.
2. This instruction loads the contents of mailbox 30 into the calculator. Thus, the data loaded is 50.
3. This instruction goes to mailbox 30 to find the address 50, and then loads the contents of mailbox 50 into the calculator. Thus, the data loaded is 70.