

1. How many commands does the execution unit have?

6 commands

- ✓ Move Value to Register
- ✓ Move Register to Register
- ✓ Add Value to Register
- ✓ Add Register to Register
- ✓ AND Value to Register
- ✓ AND Register to Register

2. How many bits are required for the user input command?

10 bits

2 bits operation | 2 bits destination | 2 bits source | 4 bits value if specified

3. How many forbidden input commands do execution unit have? Give an example.

Forbidden inputs include the operation having 01 – because we only have 3 operations (Move 00 / Add 10 / AND 11)

And also the destination having 11 – because we only have 3 registers (A 00 / B 01 / C 10) but the source has an extra option which is value (11).

EXAMPLE:

0100111010 X