1. Which part of the module in simple-single-CPU is redundant? Can you

design a new instruction to use this module?

**The** **overflow output of ALU module is redundant, a new instruction bov(branch on overflow) can use the overflow part of ALU module.**

2. Which instruction is redundant and why?

**bnez is redundant, it can be replaced with bne.**

**bnez rs, 0, imm is equal to bne rs, $0, imm**