Please print out this form (two-sided, if you can) and write your answers legibly in the spaces provided. If you can’t write legibly, type.

1. Which of the processor’s registers are used during the execution of a brZero instruction? Which registers are modified?

2. Draw a timing diagram for the execution of the indirect branch instruction. Show the clock, the memory signals and the program counter.
3. How would you change the processor VHDL to implement a subtract instruction with the following instruction summary?

9xxx Subtract - ACC = ACC – M[pxxx]

List all the changes required to the source code.