Sample Questions

1. Consider the following program:
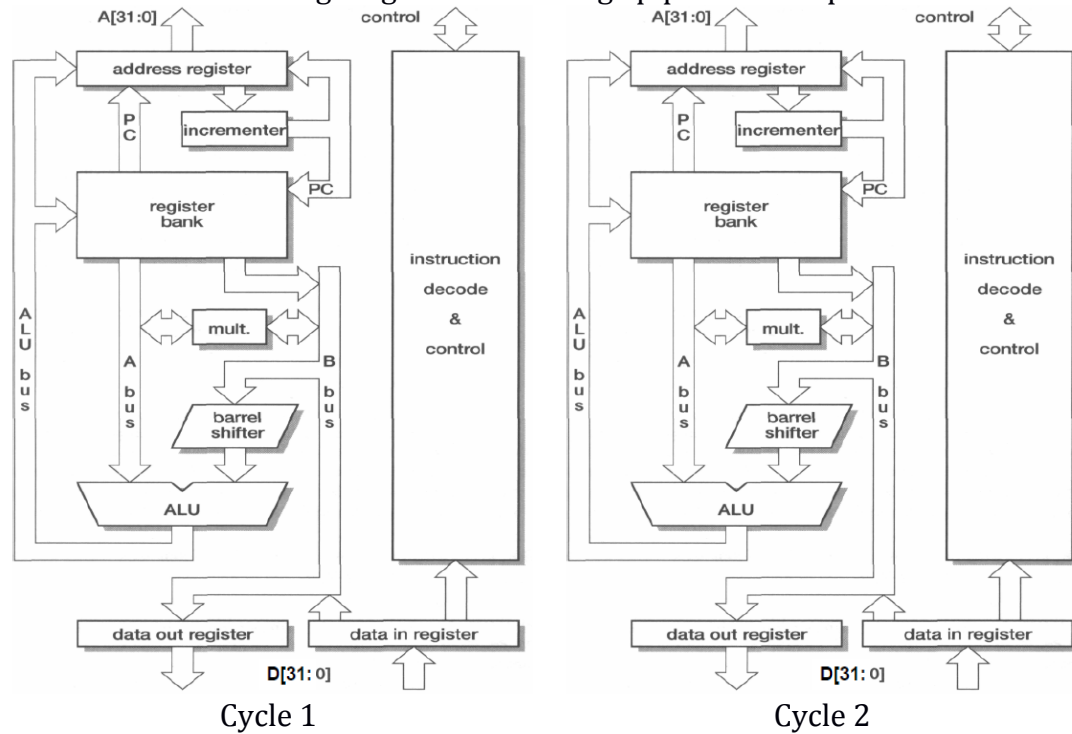```
ldrb r3, [r4], #4
add r1, r3, r5
sub r2,r3,r1
```

   a. Draw the diagram showing the pipeline progression.
   b. How many cycles are required (from start to finish) to fully execute the lines?

2. Random questions on exceptions and interrupts
   a) Write the lines of assembly code to disable interrupts.
   b) Write the lines of assembly code to enable interrupts.
   c) What is an example of a device you would configure with a fast interrupt instead of a regular interrupt?

3. Show the steps of using trial subtraction in 8-bits to calculate 1456/23.

# 4. Consider the following diagram for a 3-stage pipeline ARM processor:



Cycle 1

Cycle 2

Shade in the portions of the datapath that are used during each cycle of:

```
ldr r0, [r4, #4]
```