

**Question1:**

```
    add $4,$0,$0
Loop: add $1,$4,$6
    lw $2,0($1)
    lw $3,1($1)
    sw $0,0($1)
    addi $4,$4,1
    beq $0,$4,Loop
```

Show the optimum scheduling of the above instructions if the loop executes for only 1 iteration. Your scheduling should work for a 2-issue processor where first slot can issue a mem instruction while the second can take arithmetic and branch instruction.