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Computer Science 220
Lab 4: Controlling Structures
Part 2: Write a step-by-step description of the bytecode

1. **bipush 10** push the constant 10 onto the stack
2. **istore_1** pop the 10 and save it in location 1 ($i = 10$)
3. **bipush 20** push 20 onto the stack
4. **istore_2** [pop the 20 and save it in location 2 ($j = 20$)
5. **iconst_0** push 0 onto the stack
6. **istore_3** pop 0 and save it in location 3 ($k = 0$)
7. **iload_1** push contents of location 1 onto stack (i)
8. **bipush 10** push constant 10 onto stack
9. **if_icmple 15** pop two element and compare with “ \leq ” (if($i \leq 10$))
if test is true, go to line 15
10. **iload_2** [test was false] load contents of location 2 onto stack (j)
11. **bipush 20** push the constant 20 onto stack
12. **if_icmpne 15** pop two elements and compare with “ \neq ” (if $j \neq 20$)
if test is true, go to line 15
13. **bipush 100** [test was false] push the constant 100 onto the
stack
14. **istore_3** pop stack and store in location 3($k = 100$)

15. **iload_3** push contents of location 3 onto stack (return k)

16. **ireturn**