**Assignment 5**

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1.

a. 18 bytes

b. 40 bytes

c. 66 bytes

2.

a. If the given switch statement is implemented using a jump table, all the 7 values are present. It is feasible to use a jump table in this case because all the case arguments are in serial order or inorder.

b. In this scenario, the jump table contains all the values of each case. But here case values are not in order so we cannot implement this switch statement using jump table.

We can see that there is a wide deviation between case values. In such cases, the jump table would be huge and very sparse. So, the compiler resorts to using a cascade of comparisons to implement the switch.

Also, the code generated for switch statement in such cases is like if – else statement which increases the time for execution.

3.

a. 105

b. 60

4. In C – 16

In Java – It generates a compilation error in Java

5.

a. ((i+=(i>0)) && (j>1))?(((j=5)\*5)+6):++k;

b. ((i+=(i>0)) && (j>1)) = 2(true) && 1(true) = 1 (true)

So, result will be ((j=5)\*5+6)

= 5\*5+6

= 31

6.

a. p1 = “first”, p2 = { ‘mon’ => 72, ‘tue’ =>68, ‘wed’ => 59 }, p3 = [1,2,3,4,5]

b. p1 = “first”, p2 = [1,2,3,4,5], p3 = { ‘mon’ => 72, ‘tue’ =>68, ‘wed’ => 59 }

c. p1 = 1, p2 = “first”, p3 = { ‘mon’ => 72, ‘tue’ =>68, ‘wed’ => 59 }