

1. What does the acronym SASP stand for? Fill in the four blanks.

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2. Write the complete C++ program that can find the sum of the integers 1, 2, 3 ... n where n is a positive integer that is entered by the user of your program. For example:

```

Please enter an integer: 5
The sum is: 15
    
```

3. Figure 5-1: **Draw the flow chart for the logic of a while loop**, as it was shown on page 233 of textbook (*which you also received as a handout*).

4. It is important to focus on P first and then focus on I and O. True or False

Circle either True or False

5. Write a C++ function that will swap the integer values in two different variables. For example, if variable X has the value 111 and variable Y has the value 222 before doing the swap(X, Y); statement, then after swap() is done, X will be 222 and Y will be 111. You only need to write the function.

6. Write the complete C++ function that will return the product of the numbers 1 times 2 times 3 times ... times n, given the integer value n. Name your function factorial. For example:

```

X = factorial(3); // X would be 6
Y = factorial(4); // Y would be 24
Z = factorial(5); // Z would be 120
    
```

7. Show what the BUBBLE SORT results will look like after each pass through the array?

<b>88</b>				
<b>44</b>				
<b>77</b>				
<b>22</b>				
<b>11</b>				