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| **Computing Fundamentals & Programming**  ***Section*: BSCE2021 Assignment # 1 *Total marks*: 100**  ***Name***: ***Muhammad*** ***Abubakar Saif Roll number*: BSCE21017** |

***Submission:***

• *Email instructor or TA if there are any questions. You cannot look at others’ solution or use others’ solution, however, you can discuss it with each other. Plagiarism will lead to a straight zero with additional consequences as well.*

*• Submission after due time will not be accepted.*

**TASKS:**

Write down the algorithm and draw flowcharts according to designed algorithm for the following:

1. Print hello world. [10 marks]

**Algorithm**

1. Start
2. Print “Hello World”
3. End

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1. A number is given as input. If the number is greater than 50, print ‘success’. If the number is less than 50, print ‘fail’. If the number is equal to 50, print ‘edge’. [20 marks]

**Solution:**

1. Start
2. Input A
3. If A>50 then Print “Success” and End Else goto step 4
4. If A<50 then Print “Fail” and End Else goto step 5
5. If A=50 then Print “Edge”
6. End

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1. Multiplication of three numbers. [20 marks]

**Algorithm:**

1. Start
2. Input A, B, C
3. Let P=A\*B\*C
4. Print P
5. End

**Flowchart:**

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1. Check whether a number is prime or not. [25 marks]

**Algorithm:**

1. Start
2. Let i= 1
3. Let l= 0
4. Input N
5. If i ≤ N Then goto step 6 Else goto step 12
6. If i mod N = 0 Then goto step 9 Else goto step 7
7. i = i + 1
8. goto step 5
9. i = i + 1
10. l = l + 1
11. goto step 5
12. if l = 2 Then goto step 13 Else goto step 15
13. Print “N is a prime number”
14. Goto step 16
15. Print “N is not a prime number”
16. End

**Flowchart:**

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1. Repeatedly ask the user to enter a number until the user enters -1. Calculate sum of all numbers entered by user and store it in ‘Sum’. If the user enters -1, print the sum and terminate the program. [25 marks]

*e.g. User enters the number in following order:*

*4 1 7 0 5 -1*

*Then program should print 17 (since Sum=17)*

**Algorithm:**

1. Start
2. Let Sum=0
3. Input N
4. If N= -1 Then Print Sum and Goto step 7 Else Goto Step 5
5. Sum= Sum + N
6. Goto Step 3
7. End

**Flowchart:**

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