

**STESC105 - Programming for Problem Solving**

P. Pages : 1

Time : Two Hours



**GUG/S/25/16150**

Max. Marks : 40

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- Notes : 1. All questions are compulsory.  
2. Assume suitable data wherever necessary.

1. a) What is flowchart? Explain different symbols involved in it. Draw the flowchart for the area of triangle. 7

b) Write a program in C “to swap two numbers” without using third variable / number. 7

**OR**

2. a) What is data types? Explain different types of data types in details. 7

b) Write note on: 7

i) Arithmetic operators.

ii) Assignment operators.

3. a) Explain the following looping statements with syntax. 6

i) While statements.

ii) For statements.

b) Explain switch case in detail with example. 7

**OR**

4. a) Write a C program to calculate the sum of 10 numbers and if user enter negative number loop will terminate by using break statement. 7

b) Differentiate between “if else statement” and “nested if” with suitable example . 6

5. a) Explain the following terms by giving examples. 7

i) Call by value

ii) Call by reference

b) Write a program to find largest element in an array. 6

**OR**

6. a) Define Recursion. Write a program to calculate the factorial of a number using recursion. 7

b) Explain the concept of user defined functions with the help of example. 6

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