SNS COLLEGE OF TECHNOLOGY

Coimbatore-36.

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COURSE NAME : 23CST101 – PROGRAMMING FOR PROBLEM SOLVING

I YEAR/ II SEMESTER

UNIT – I

Topic: Structure of C program

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Structure of C program

```c
/*Program to find
   area and perimeter of Circle */
#include<stdio.h>
#define PI 3.1415
float radius;
float area();
float perimeter();
int main()
{
    float a, p;
    printf("Enter radius : ");
    scanf("%f",&radius);
    a = area();
    p = perimeter();
    printf("Area of Circle : %f",a);
    printf("Perimeter : %f",p);
}
float area()
{
    return (PI * radius * radius);
}
float perimeter()
{
    return (2 * PI * radius);
}
```

Documentation Section
Linkage Section
Definition Section
Global Declaration Section

Main Function Section
 	
    Local Declaration Part
    Executable Code Part

Sub Program Section
 	
    Function1()
    Function2()
    ....
    FunctionN()

Structure of C program

Documentation Section

- This section consists of comment lines which include the name of programmer, the author and other details like time and date of writing the program.

- Documentation section helps anyone to get an overview of the program.

Link Section

- The link section consists of the header files of the functions that are used in the program.

- It provides instructions to the compiler to link functions from the system library.

Definition Section

- All the symbolic constants are written in definition section.

- Macros are known as symbolic constants.

Global Declaration Section

- The global variables that can be used anywhere in the program are declared in global declaration section.

- This section also declares the user defined functions.

main() Function Section

- It is necessary have one main() function section in every C program.

- This section contains two parts, declaration and executable part.

- The declaration part declares all the variables that are used in executable part.

- These two parts must be written in between the opening and closing braces.

- Each statement in the declaration and executable part must end with a semicolon (;).

- The execution of program starts at opening braces and ends at closing braces.

Subprogram Section

- The subprogram section contains all the user defined functions that are used to perform a specific task.

- These user defined functions are called in the main() function.