Module -1

1. Explain the salient features of python.

2. Write a python program to calculate the area of square, rectangle and circle. Print the results. Take input from user

3. What are user defined functions? How can we pass parameters in user defined functions? Explain with suitable example.

<center>Or</center>

   Write a python program to create a user defined function to find maximum and minimum letter in string. Also find the length the string without using inbuilt function.

4. What is Exception Handling? How exceptions are handled in Python? Write a Python program with exception handling code to solve divide-by-zero error situation.

5. Explain the concept of type conversion functions and math functions in python with examples.

6. Explain the concept of conditional execution alternate execution and chained conditions with suitable examples.

7. Explain the working of while loop in python with suitable example.

8. Write a python program to demonstrate counting, summing and average of elements using loops.

9. With syntax and example code, explain the working of definite loop in python.

10. Mention three types of errors encountered in python programs. Explain the basic building block of python with an example python program to display format number ($Fn = 2^{2n} +1$) for a n value promoted by the users.

11. Describe python language support for arithmetic operators.

12. List and give syntax of all python supported conditional statements along with its usage with an example program to check whether given number is positive or negative or zero.

13. Differentiate between arguments and parameter. Illustrate the flow of execution of a python function with an example program to convert given Celsius to Fahrenheit temprature.

14. Explain while and for loop write a program to generate Fibonacci series up to the given limit by defining FIBONACCI(n) function.

15. Mention the advantage of continue statement. Write a program to compute only even numbers sum within the given natural number using continue statement.

16. Explain the math operators in Python from highest to lowest Precedence with an example for each. Write the steps how Python is evaluating the expression (5 - 1) * ((7 + 1) / (3 - 1)) and reduces it to a single value.

17. Explain Local and Global Scope in Python programs. What are local and global variables? How can you force a variable in a function to refer to the global variable?

18. Define a Python function with suitable parameters to generate prime numbers between two integer values. Write a Python program which accepts two integer values m and n (note: m>0, n>0 and m < n) as inputs and passthesevalues to the function. Suitable error messages should be displayed if the conditions for input values are not followed.

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