UNIT 2

Q.explain any 5 maths function in detail.

The math module is a standard module in Python and is always available. To use mathematical functions under this module,

you have to import the module using 'import math'.

the 5 maths functions are:

factorial(x)- Returns the factorial of x

pow(x, y)- Returns x raised to the power y

sqrt(x)- Returns the square root of x

fabs()- This function returns the absolute value of the number.

copysign(a, b) :- This function returns the number with the value of 'a' but with the sign of 'b'.

gcd() :- This function is used to compute the greatest common divisor of 2 numbers mentioned in its arguments.

Q.explain parameters and arguments with eg.

The terms parameter and argument can be used for the same thing: information that are passed into a function.

From a function's perspective:

A parameter is the variable listed inside the parentheses in the function definition.

An argument is the value that are sent to the function when it is called.

Key Terms:

argument-A value provided as input to a function.

parameter-A variable identifier provided as input to a function.

eg-

```python
def my_function(a,c):
    print(a + " " + c)
my_function("b")
```

Q.program to return a value.

```python
def my_function(x):
  return 5 * x

print(my_function(3))
print(my_function(5))
print(my_function(9))
```

Q.program on various list method.

referre to pdf.

Q.expplain 5 built-in list function.

1 cmp(list1, list2)

  descrip-It compares the elements of both the lists.

  eg-This method is not used in the Python 3 and the above versions.

2 len(list)

  descrip- It is used to calculate the length of the list.

  eg- L1 = [1,2,3,4,5,6,7,8]

    print(len(L1))

 8

3 max(list)

  descrip-It returns the maximum element of the list.

  eg -L1 = [12,34,26,48,72]

    print(max(L1))

 72

4 min(list)

  descrip- It returns the minimum element of the list.

eg - L1 = [12,34,26,48,72]

    print(min(L1))

12

5 list(seq)

descrip-It converts any sequence to the list.

eg - str = "Johnson"

    s = list(str)

    print(type(s))

<class list>

Q.explain any list operations.

Repetition- The repetition operator enables the list elements to be

repeated multiple times.

L1*2 = [1, 2, 3, 4, 1, 2,

3, 4]

Concatenation- It concatenates the list mentioned on either side of the

operator.

l1+l2 = [1, 2, 3, 4, 5,

6, 7, 8]

Membership- It returns true if a particular item exists in a particular list otherwise false.

print(2 in l1) prints

True.

Iteration- The for loop is used to iterate over the list elements.

for i in l1:

 print(i)

Output

1

2

3

4

Length -It is used to get the length of the list. len(l1) = 4