Python Important Q & A For CIA-II

Q1. Distance b/w two points (PROGRAM).

Ans. Program: -

```python
import math
def distance(x1,y1,x2,y2):
    AB=math.sqrt((x2-x1)**2+(y2-y1)**2)
    return AB
x1=int(input("Enter x value in A point:"))
y1=int(input("Enter y value in A point:"))
x2=int(input("Enter x value in B point:"))
y2=int(input("Enter y value in B point:"))
res=distance(x1,y1,x2,y2)
print("Distance =",res)
```

Output: -

Enter x value in A point:7

Enter y value in A point:5

Enter x value in B point:3

Enter y value in B point:2

Distance = 5.0

Q2. Write a syntax for defining a function?

Ans.
Syntax:
def fun_name(Parameter1,Parameter2...Parameter n):
statement1
statement2...
statement n return[expression]

Q3. Explain for loop with an example?

Ans.

It executes a sequence of statements multiple times.
for in range:
- We can generate a sequence of numbers using range() function. range(10) will generate numbers from 0 to 9- 10 numbers).
- In range function we have to define the start, stop and step size as range(start,stop,step size). step size defaults to 1 if not provided.

Syntax

for var in range (start, stop, steps):
body of the loop

Example:

For i in range(1,11,1)

print(i)

Output:-

1

2

3

4

5

6

7

8

9

10

Q4. Define infinite loop in a python?

Ans.

    A loop becomes infinite loop if the condition given never becomes false. It keeps on running. Such loops are called infinite loop.

Example:
```
a=1
while (a==1):
n=int(input("enter the number"))
print("you entered:" , n)
```
Output:
Enter the number 10
you entered:10
Enter the number 12
you entered:12

Q5. What is a Module?

Ans.

A module is a file containing Python definitions, functions, statements and instructions. Standard library of Python is extended as modules. To use these modules in a program, programmer needs to import the module.

Q6. What are the jumping (or) unconditional statements in python?

Ans.

BREAK
- Break statements can alter the flow of a loop.

- It terminates the current loop and executes the remaining statement outside the loop.
- If the loop has else statement, that will also gets terminated and come out of the loop completely.

CONTINUE
- It terminates the current iteration and transfer the control to the next iteration in the loop.
- Continue statement returns the control to the beginning of the loop.

PASS
- It is used when a statement is required syntactically but we don't want any code to execute.
- It is a null statement, nothing happens when it is executed.

Q7. What are Types of arguments?

Ans.

Types of parameters/Arguments
1. Required/Positional parameters
2. Keyword parameters
3. Default parameters
4. Variable length parameters