1.Difference b/w break continue and pass ?

Break: Terminates a loop when condition is met.

Continue: Skips the remaining code in the iteration of loop,and contiues withnext iteration.

Pass: A null operation that does nothing and is used as placeholder when statement is required but no action is needed.

2.d/w remove , delete, pop and write an example program in python to demonstrate 3 of them.?

Remove: removes first occurance of specified element.

a=[1,2,3,2,3,4,5]

a.remove(3)

print(a)

Delete: Delete items from a list by index or remove the entire list.

a=[1,2,3,2,3,4,5]

del a[3]

print(a)

Pop: removes and return element from list,by default,It removes last element but we can specify an index to remove an element at a particular position

a=[1,2,3,2,3,4,5]

a.pop(3)

print(a)

3.D/w append and extend..?

Append: Addes item at last and takes only 1 argument at a time

a=[1,2,3,4,5]

a.append(9)

print(a)

Extend: Add elements from an iteration which adds an entire iterable as a single element and adds each element from the iterable list.

a=[1,2,3,4,5]

b=[6,7,8,9]

a.extend(b)

print(a)

4.Write a python program to print the element in the array with negative indexes(ex : print the element which is present in -2 positions) ..?

a=[1,2,3,4,5]

print(a[-2])

5.Write a python program to print your name , designation, technology 100 times ?

name=input("enter the name:")

print(name\*100)

6. Arithmetic Operators

# Write a program that takes two numbers from the user and performs the following operations:

# - Addition

a=3

b=4

c=a+b

print(c)

# - Subtraction

a=3

b=4

c=a-b

print(c)

# - Multiplication

a=3

b=4

c=a\*b

print(c)

# - Division

a=3

b=4

c=a/b

print(c)

7.Logical Operators

# Write a program that asks the user for their age.

# - If the age is less than 18, print "You are a minor."

# - If the age is 18 or older, print "You are an adult."

age=int(input("enter your age:"))  
if age<18:  
 print("you are minor")  
if age>18 or age==18:  
 print("you are adult")

8.Comparison Operators

# Write a program that compares two strings entered by the user.

# - If the strings are equal, print "Strings are equal."

# - If not, print "Strings are not equal."

str1=input("enter first string:")  
str2=input("enter second string:")  
if str1==str2:  
 print("strings are equal")  
else:  
 print("not equal")

9.While Loop

# Write a program that uses a while loop to print the numbers from 1 to 5.

i=1  
while i<=5:  
 print(i)  
 i+=1

10. For Loop

# Write a program that uses a for loop to iterate over a list of fruits and print each fruit.

fruit=("apple","banana","cherry","papaya")  
for i in fruit:  
 print(i)

11.Lists

# Create a list of numbers and perform the following operations:

# - Add a new number to the list.

# - Remove an existing number from the list.

a=[1,2,3,4,5]  
print(a)  
a.append(6)  
print(a)  
a.remove(4)  
print(a)

12.Dictionaries

# Create a dictionary representing a person with attributes like name, age, and city.

# - Print the person's information.

# - Add a new attribute (e.g., occupation) to the dictionary.

person={"name":"aish","age":28,"city":"gulb"}  
print(person)  
person["occupation"]="software developer"  
print(person)

13. What is a list in Python, and how is it used in DevOps?

A list is a collection of items that can be of any data type.

Denoted by []

Lists are orderd

It can have duplicates

14.How do you create a list in Python, and can you provide an example related to DevOps?

my\_list=[]

my\_list=[1,2,3,4,5]

print(my\_list)

15. What is the difference between a list and a tuple in Python, and when would you choose one over the other in a DevOps context?

Lists are mutable(changeable)

Tuples are immutable(not changeable)

When to choose;If a data is needed in program which is not supposed to be changed

16.How can you access elements in a list, and provide a DevOps-related example?

a=[1,2,3,4,5]

print(a[4])