PYTHON IN 10 VIDEOS

Assignment - 2

1. Which leads to infinite while loop ?

a. while(True) print("chutney")
b. while(x<10) print("chutney")
c. while(False) print("chutney")
d. while(x!=5) print("chutney")

Answer:a

2. While loop definition?

a. Execute on condition
b. Iterates over a sequence
c. Executes the code block for predetermined number of times
d. For list operations

Answer: a

3. For loop definition?

a. Execute on condition
b. Iterates over a sequence
c. Executes the code block for predetermined number of times
d. For list operations

Answer: b

4. Minimum number of times a while loop executes?

a. 0
b. 1
c. 2
d. Depends on the condition

Answer: a

5. While loop without termination can cause?

a. Slows down the program
b. Consumes more memory
c. Infinite loop
d. Syntax error

Answer: c

6. What happens when you iterate over an empty sequence using for loop?

a.   Loop executes once
b.   Loop throws error
c.   Loop doesn't execute at all
d.   Loop runs indefinitely

Answer: c

7. range():

a. Generates list of numbers
b. Specifies number of iterations
c. Defines start & end points for looping
d. Generates sequence of numbers

Answer: d

8. Define 'continue'

a. Exits loop immediately
b. Comes out of current iteration & move on to next iteration
c. Restarts loop from beginning
d. Stops execution

Answer: b

9. When to use 'pass'?

a. To exit loop
b. To comes out of current iteration & move on to next iteration
c. To act as placeholder when no action is required on certain condition
d. To restart loop from beginning

Answer: c

10. Find output:

```python
for i in range(5):
    if i==2:
        break
    print(i)
```

a. 0 1 2 3 4
b. 0 1
c. 0 1 2
d. 1 2 3 4

Answer: b

11. Find output:

```python
for i in range(5):
    if i==2:
        continue
    print(i)
```

a. 0 1 3 4
b. 0 1
c. 0 1 2
d. 0 1 2 3 4

Answer: a

12. What does 'break' do?

a. Exits loop immediately
b. Skips rest of code inside current iteration
c. Restarts loop from beginning
d. Terminates the code

Answer: a

14. Find output:

```python
a = 10
b= 5
c=20

if a>b and a>c:
    print("a is big")
elif b>a and b>c:
    print("b is big")
else:
    print("c is big")
```

a. a is big
b. b is big
c. c is big
d. Identation error **Answer:c**

15. Find output:

```python
a = 5
b= 10
c= 15

if a<b:
    if b<c:
        print("c is big")
    else:
        print("b is big")
else:
    print("a is big")
```

a.   a is big

b.   b is big

c.   c is big

d.   error **Answer:c**

16. Find output:

```python
x = 15
if x<10:
    print("x is less than 10")
elif x>20:
    print("x is greater than 20")
else:
    print("x is btw 10 and 20")
```

a. x is less than 10
b. x is greater than 20
c. x is btw 10 and 20
d. None of the above

Answer:c

16. Find output:

```python
x = 5
if x>10:
    print("x is greater than 10")
elif x==5:
    print("x is 5")
else:
    print("x is just dummy")
```

a. x is greater than 10
b. x is 5
c. x is just dummy
d. None of the above **Answer:b**

17. What is the datatype of input() function's result?

a. Int
b. String
c. list
d. Float

Answer:b

18. Find output:

```python
for i in range(1, 10, 3):
    print(i)
```

a. 1, 4, 7
b. 1,3,5,7
c. 2,6,9
d. Syntax error

Answer:a

19. Write a program that prints a 5x5 grid of asterisks (*) using nested loops.

```python
for i in range(5):

    for j in range(5):

        print("*", end=" ")

    print()
```

20. Write a program that asks the user to input a number and prints all the even numbers from 1 to that number using a for loop.

```python
number = int(input("Enter a number: "))

for i in range(1, number + 1):

    if i % 2 == 0:

        print(i)
```