

Question Bank
Python Programming (BTETPE405E)

1. State and explain any six features of python.
2. State any six applications of python.
3. State any six reasons, why you must consider writing software applications in Python.
4. Explain input command in python with suitable example.
5. Explain print command in python with suitable example.
6. State which of the following python statements are valid and invalid.
 - a. `print("ksk", + "123")`
 - b. `print("ksk" '+' "123")`
 - c. `print("ksk", '+', "123")`
 - d. `print('ABC is a "technological" University')`
 - e. `print(2 + '3')`
 - f. `print('2' * 3)`
7. What will be the output of following print statements?
 - a. `print('abc' * 2)`
 - b. `print(3+4j + 2+1j)`
 - c. `print(3*2 // 4)`
8. State which of the following python statements are valid and invalid.
 - a. `x = input("enter a number")`
 - b. `x = input()`
 - c. `x = input("")`
 - d. `x = input(" ' ' ")`
 - e. `x = input(2)`
 - f. `x=input("2" + "3")`
9. What will be the value of variables x, y & z after execution of following python program. Assume that user enters a value 5.

```
temp=input("enter a number")
x=temp*5
y=int(temp)*5
z=bool(temp*0)
```

10. What will be the output of following program? Assume that user will enter only integer value.

```
temp=input("enter a number")
x=temp*0
y=int(temp)*0
z=bool(temp*0)
print(x)
print(y)
print(z)
```

11. What are the types of following variables?

- a. a = 55
- b. b = '3 + 4j'
- c. c = "1DBATU"
- d. d = 5 + 2j
- e. e = a
- f. f = b+c

12. Rewrite following code with proper indentation to get the output as

Expected output	Code without indentation
cube of 1 is: 1 square of 2 is: 4 cube of 3 is: 27 square of 4 is: 16 cube of 5 is: 125	abc = [1,2,3,4,5] for x in abc: if x%2 == 0: print("square of ", x , "is:") print(x**2) else: print("cube of ", x , "is:") print(x**3)

13. What will be the output of following print statements?

- a. print(123, "\nabc")
- b. print("*****", "\n***", "\n**", "\n*")
- c. print("''''''''''''')

- 14. Explain any six arithmetic operators of python with suitable examples of each.
- 15. Explain any six assignment operators of python with suitable examples of each.
- 16. Explain all comparison operators of python with suitable examples of each.
- 17. Explain "and, or, not" operators of python with suitable examples of each.

18. Explain following operators of python with suitable examples of each.
 - a. is,
 - b. in,
 - c. not in
19. Explain all bitwise operators of python with suitable examples of each.
20. Explain while loop with suitable example?
21. Explain for loop with suitable example?
22. Explain break, continue and pass statement with suitable example of each.
23. Differentiate between List, Tuple & Set with suitable examples of each.
24. Explain any three collection data types of Python with suitable examples of each.
25. Explain append() and copy() methods of list with suitable examples of each.
26. Explain count() and index() methods of list with suitable examples of each.
27. Explain insert() and remove() methods of list with suitable examples of each.
28. Explain reverse() and remove() methods of list with suitable examples of each.
29. Explain clear() and extend() methods of list with suitable examples of each.
30. Explain pop() and sort() methods of list with suitable examples of each.
31. What will be the output of following python statements?
 - a. `print(23 // 5)`
 - b. `print(2 << 2)`
 - c. `print(2 >> 0)`
 - d. `print(2 ^ 2)`
 - e. `print(2 != 2)`
 - f. `print(2 < 0)`