# Python Variables & Data Types - Questions with Answers

1. Create a variable x and assign the value 10 to it. Print x.

```
x = 10

print(x)
```

2. Create two variables: a = 5, b = 3.2. Print their sum and check the type of each.

```
a = 5

b = 3.2

print(a + b)

print(type(a))

print(type(b))
```

3. Store your name in a variable my_name and print it.

```
my_name = 'Ram'

print(my_name)
```

4. Create a variable is_student and assign it the value True. Print the variable and its type.

```
is_student = True

print(is_student)

print(type(is_student))
```

5. Convert the integer 100 into a string and print the result with its type.

```
num = 100

str_num = str(num)

print(str_num)

print(type(str_num))
```

6. Take a string '45' and convert it into an integer. Add 5 and print the result.

```
s = '45'

i = int(s) + 5
```

```
print(i)
```

7. Create a variable temperature and assign a float value. Convert it to integer and print.

```
temperature = 36.6

temp_int = int(temperature)

print(temp_int)
```

8. Write a program to input your age and print a message like: 'You are 25 years old.'

```
age = input('Enter your age: ')

print(f'You are {age} years old.')
```

9. Concatenate two strings: 'Hello' and 'Python' and print the result.

```
a = 'Hello'

b = 'Python'

print(a + ' ' + b)
```

10. Check and print the type of each: 23, 'hello', 3.14, True

```
print(type(23))

print(type('hello'))

print(type(3.14))

print(type(True))
```

11. Create a list of 5 fruits and print the list.

```
fruits = ['apple', 'banana', 'orange', 'grape', 'mango']

print(fruits)
```

12. Create a tuple of 3 numbers and print the second item.

```
numbers = (10, 20, 30)

print(numbers[1])
```

13. Create a list of 5 numbers. Replace the third number with a new value and print the list.

```
nums = [1, 2, 3, 4, 5]
```

```
nums[2] = 99

print(nums)
```

14. Create a dictionary with keys: name, age, city. Assign your own values and print the dictionary.

```
info = {'name': 'Ram', 'age': 22, 'city': 'Chennai'}

print(info)
```

15. From the above dictionary, print only the value of the city.

```
print(info['city'])
```

16. Add a new key gender to the existing dictionary and print it.

```
info['gender'] = 'Male'

print(info)
```

17. Create a list of numbers and print only the even numbers using a loop.

```
nums = [1, 2, 3, 4, 5, 6]

for n in nums:

    if n % 2 == 0:

        print(n)
```

18. Convert a tuple (1, 2, 3) to a list and add a new item to it.

```
t = (1, 2, 3)

l = list(t)

l.append(4)

print(l)
```

19. Create two sets: {1,2,3} and {3,4,5}. Find and print their intersection.

```
a = {1, 2, 3}

b = {3, 4, 5}

print(a & b)
```

20. Create a dictionary of 3 students and their marks. Print each student's name with their marks.

```
students = {'Alice': 85, 'Bob': 90, 'Charlie': 78}

for name, marks in students.items():

    print(f'{name}: {marks}')
```