

## QUESTION 1.1 =>

➔ Static variable is defined within a class but outside any instance method. Can be shared among all instances of a class. Memory allocated once when instance is loaded. Dynamic variable defined in instance method by `__init__` command. Unique to every instance of a class. Memory allocated to every time instance is called.

➔ Pop removes specified key and returns the value. Popitem returns the last inserted key value pair as a tuple. Clear method removes all items from the dictionary.

```
D = {"name" : "rick", "age" : 21}
```

```
Print(d.pop(age)) -> 21
```

```
Print(d.popitem()) -> 'age' : 21
```

➔ Frozen set is a type of set in python once created the elements cannot be altered.

```
fruits = frozenset(["apple", "banana"])
```

➔ Mutable we can alter the elements of the data type. Ex -> list. Immutable we cannot alter the elements. Ex -> tuples, frozenset

➔ `__init__` special constructor method to create object of a class.

```
class Dog:
```

```
    def __init__(self, name, age):
```

```
        self.name = name
```

```
        self.age = age
```

```
my_dog = Dog("Buddy", 3)
```

```
print(my_dog.name)
```

```
print(my_dog.age)
```

➔ Docstring is a string literal appears right after the function, class, method, etc.

➔ Unit tests are the smallest test cases to check and verify the validity of the source code.

➔ Break come out of the scope. Continue to make the cursor move to next line. Pass to pass the given block of code.

➔ Self method is used to refer the instance of a class.

➔ Global can be accessible from any part of the code. Protected can be accessed only from where we give the permission. Private cannot be accessed from anywhere.

➔ Modules and packages are the systematic in built libraries in python to use the python programming language more usefully and efficiently.

- ➔ List and tuples are data structure in python which can store multiple values.  
List are mutable while tuples are immutable.
- ➔ Integrated language and dynamically typed language...
- ➔ Dict and list comprehension meaning ??
- ➔ Decorators allows you to modify the behavior of a function. They wrap another function without changing the initial function. Decorators are used for logging, instrumentation, catching, etc.

QUESTION 1.2 =>

- ➔ A dot
- ➔ B start with number
- ➔ C invalid symbol(\$)
- ➔ E invalid symbol(-)
- ➔ F gap/space

QUESTION 1.3 =>

- ➔ A = name.insert (0, "freedom\_fighter")
- ➔ B = 3 + 5 = 8
- ➔ C = name.append ("Netaji"), name.append ("Bose")
- ➔ D = ["Mohan", "dash", "karam", "chandra", "gandhi", "Bapuji"]

QUESTION 1.4 =>

- ➔ 2
- ➔ 4
- ➔ 7

QUESTION 1.5 =>

- ➔ 8

➔ `""Navneet""`

➔ `Print(tuple1[-1][-2]['roll_no'])`

➔ `""ji""`

➔ `Print(tuple[-2][2])`

QUESTION 1.6 to 1.14 => At GitHub Repository