



<b>Class: XI</b>	<b>SUB: INFORMATICS PRACTICES</b>	
<b>Worksheet</b>	<b>TOPIC: Dictionary</b>	

### Section A

Fill in the blanks:

1. Dictionaries are **Mapping data type Object**.
2. Dictionary elements are in the form of **key:value** that associates keys to values.
3. **Keys** of a dictionary must be unique.
4. Dictionaries can be created through **{}** and **dict()** constructor.
5. **in** and **not in** operators can only work with dictionary keys.
6. **clear()** method removes all the items from dictionary but the dictionary objects exists as an empty dictionary.
7. The **del** statement removes a dictionary object along with its items.

### Section B

Answer the following:

1. How are dictionaries different from lists?  
**Dictionary is partially mutable in which keys are not mutable but value are mutable. It is enclosed with in { }**  
**List is completely mutable. It is enclosed within [ ].**
2. What type of objects can be used as keys in dictionaries?  
**Immutable objects can be used as keys in dictionaries.**
3. What type of objects can be used as values in dictionaries?  
**Mutable objects can be used as values in dictionaries.**
4. Why can't Lists can be used as keys?  
**As List is a mutable object, it cannot be used as keys in a dictionary.**
5. How is clear() function different from del <dict> statement?  
**clear() method removes all the elements in a dictionary, but dictionary object will remain exist.**  
**del <dict> removes the dictionary and dictionary object will not exist.**

### Section C

Find the output of the following code:

```
(a)
D1 = {1 : 10, 2 : 20, 3 : 30, 4 : 40, 5 : 50}
print(D1.keys())
print(D1.values())
print(D1.items())
```

---

**Output:**

**(1,2,3,4,5)**

**(10,20,30,40,50)**

**[(1,10),(2,20),(3,30),(4,40),(5,50)]**

(b)

```
D1 = {1 : 10, 2 : 20, 3 : 30, 4 : 40}
```

```
D2 = {5 : 50, 6 : 60, 7 : 70}
```

```
print(D1.update(D2))
```

```
print(D1)
```

**Output:**

**{1:10,2:20,3:30,4:40,5:50,6:60,7:70}**

(c)

```
D3 = {1 : 100, 2 : 150, 3 : 200}
```

```
D4 = {4 : 250, 2 : 175, 5 : 400, 3 : 225}
```

```
print(D3.update(D4))
```

```
print(D3)
```

**Output:**

**{1:100, 2:175, 3 : 225,4:250,5:400}**

(d)

```
Comp = { 'Dell' : 25000, "HP" : 28500, "Lenovo" : 23250 }
```

```
NewComp = { 'Acer' : 17300, "Lenovo" : 24500, "Apple" : 37400 }
```

```
print(Comp.update(NewComp))
```

**Output:**

**{ 'Dell' : 25000, "HP" : 28500, "Lenovo" : 24500, 'Acer' : 17300, "Apple" : 37400 }**

(e)

```
TV = { 'Ikon' : 22000, 'Samsung' : 29300, "LG" : 27800, "Sony" : 38000, "Philips" : 24000 }
```

```
print(TV.keys())
```

```
print(TV.values())
```

```
del TV['Sony']
```

```
print(TV)
```

```
TV.pop('LG')
```

```
print(TV)
```

```
print(TV.clear())
```

```
print(TV)
```

**Output:**

---

```
['Ikon' , 'Samsung', "LG", "Sony" , "Philips"]
[22000,29300,27800,38000,24000]
{'Ikon' : 22000 , 'Samsung' : 29300, "LG" : 27800, "Philips" : 24000 }
"LG" : 27800
{'Ikon': 22000 , 'Samsung' : 29300, "Philips" : 24000 }
{}
```

(f)

```
TV = { 'Ikon': 22000 , 'Samsung' : 29300, "LG" : 27800, "Sony" : 38000, "Philips" :
24000 }
print('Sony' in TV)
print('TCL' in TV)
print('Philips' not in TV)
print('SAMSUNG' not in TV)
```

**Output:**

**True**

**False**

**False**

**True**

(g)

```
Comp = { 'Dell' : 25000, "HP" : 28500, "Lenovo" : 23250, "Acer" : 17300, "Apple" :
37400 }
print(len(Comp))
del(Comp["Acer"])
print(Comp)
Comp["Asus"] = 29500
Comp.pop("HP")
print(len(Comp))
```

**Output:**

**5**

**{ 'Dell' : 25000, "HP" : 28500, "Lenovo" : 23250, "Apple" : 37400 }**

**{ 'Dell' : 25000, "HP" : 28500, "Lenovo" : 23250, "Apple" : 37400, 'Asus':29500 }**

**28500**

**4**

### Section D

- 1) WAP that repeatedly asks the user to enter product names and prices. Store all of them in a dictionary whose keys are product names and values are prices. And also write a code to search an item from the dictionary.

**Product={}**

---

```

n=int(input())
for k in range(n):
    pname=input("Enter Product Name? ")
    price=eval(input("Enter Price? "))
    Product[pname]=price
print(Product)
sname=input("Enter the Product do you want to search? ")
if sname in Product:
    print("Product is available in the Product dictionary")
    print("Product Price = ",Product[sname])
else:
    print("Product is not available...")

```

- 2) WAP that repeatedly asks the user to enter airline names and airfare. Store all of them in a dictionary whose keys are airline names and values are airfare. And also write a code to search an airline details from the dictionary.

```

Airlines={}
n=int(input())
for k in range(n):
    airname=input("Enter Airline Name? ")
    airfare=eval(input("Enter Airfare? "))
    Airlines[airname]=airfare
print(Airlines)
sairname=input("Enter the Airline do you want to search? ")
if sairname in Airlines:
    print("Airline details are available in the Airline dictionary")
    print("Airfare = ",Airlines[sairname])
else:
    print("Airline details are not available...")

```

- 3) WAP that repeatedly asks the user to enter employee names and salaries. Store all of them in a dictionary whose keys are employee names and values are salaries. And also write a code to search an employee details from the dictionary.

```

Employee={}
n=int(input())
for k in range(n):
    ename=input("Enter Employee Name? ")
    salary=eval(input("Enter Salary? "))
    Employee[ename]=salary
print(Employee)
semname=input("Enter the Employee do you want to search? ")
if semname in Employee:
    print("Employee details are available in the Employee dictionary")
    print("Salary = ",Employee[semname])
else:
    print("Employee details are not available...")

```

The Village International School

