Part 1 :

1. Which of these about a set is not true?
a) Mutable data type
b) Does not allow duplicate values
c) Data type with unordered values
d) Immutable data type

2. Which of the following is not the correct syntax for creating a set?
a) set([[1,2],[3,4]])
b) set([1,2,2,3,4])
c) set((1,2,3,4))
d) {1,2,3,4}

3. What will be the output of the following Python code?

```
nums = set([1,1,2,3,3,3,4,4])
print(len(nums))
```

a) 7
b) Error, invalid syntax for formation of set
c) 4
d) 8

4. What will be the output of the following Python code?

```
a = [5,5,6,7,7,7]
b = set(a)
def test(lst):
    if lst in b:
        return 1
    else:
        return 0
for i in  filter(test, a):
    print(i,end=" ")
```

a) 5 5 6
b) 5 6 7
c) 5 5 6 7 7 7
d) 5 6 7 7 7

5. Which of the following statements is used to create an empty set?
a) { }
b) set()
c) [ ]
d) ( )

6. What will be the output of the following Python code?

```
>>> a={5,4}
>>> b={1,2,4,5}
>>> a<b
```

a) {1,2}
b) True
c) False
d) Invalid operation

7. If a={5,6,7,8}, which of the following statements is false?
a) print(len(a))
b) print(min(a))
c) a.remove(5)
d) a[2]=45

8. If a={5,6,7}, what happens when a.add(5) is executed?
a) a={5,5,6,7}
b) a={5,6,7}
c) Error as there is no add function for set data type
d) Error as 5 already exists in the set

9. What will be the output of the following Python code?

```
>>> a={4,5,6}
>>> b={2,8,6}
>>> a+b
```

a) {4,5,6,2,8}
b) {4,5,6,2,8,6}
c) Error as unsupported operand type for sets
d) Error as the duplicate item 6 is present in both sets

10. What will be the output of the following Python code?

```
>>> a={4,5,6}
>>> b={2,8,6}
>>> a-b
```

a) {4,5}
b) {6}
c) Error as unsupported operand type for set data type
d) Error as the duplicate item 6 is present in both sets

11. What will be the output of the following Python code?

```
>>> a={5,6,7,8}
>>> b={7,8,10,11}
>>> a^b
```

a) {5,6,7,8,10,11}
b) {7,8}
c) Error as unsupported operand type of set data type
d) {5,6,10,11}

12. What will be the output of the following Python code?

```
>>> s={5,6}
>>> s*3
```

a) Error as unsupported operand type for set data type
b) {5,6,5,6,5,6}
c) {5,6}
d) Error as multiplication creates duplicate elements which isn't allowed

13. What will be the output of the following Python code?

```
>>> a={5,6,7,8}
>>> b={7,5,6,8}
>>> a==b
```

a) True
b) False

14. What will be the output of the following Python code?

```
>>> a={3,4,5}
>>> b={5,6,7}
>>> a|b
```

a) Invalid operation
b) {3, 4, 5, 6, 7}
c) {5}
d) {3,4,6,7}

15. Is the following Python code valid?

```
a={3,4,{7,5}}
print(a[2][0])
```

a) Yes, 7 is printed
b) Error, elements of a set can't be printed
c) Error, subsets aren't allowed
d) Yes, {7,5} is printed

Part 2 :

1. What will be the output of the following Python code?

```
s=set()
type(s)
```

a) <'set'>
b) <class 'set'>
c) set
d) class set

2. The following Python code results in an error.

```
s={2, 3, 4, [5, 6]}
```

a) True
b) False

3. Set makes use of _____
Dictionary makes use of _____
a) keys, keys
b) key values, keys
c) keys, key values
d) key values, key values

4. Which of the following lines of code will result in an error?
a) s={abs}
b) s={4, 'abc', (1,2)}
c) s={2, 2.2, 3, 'xyz'}
d) s={san}

5. What will be the output of the following Python code?

```
s={2, 5, 6, 6, 7}
s
```

a) {2, 5, 7}
b) {2, 5, 6, 7}
c) {2, 5, 6, 6, 7}
d) Error

6. Input order is preserved in sets.
a) True
b) False

7. Write a list comprehension for number and its cube for:

```
l=[1, 2, 3, 4, 5, 6, 7, 8, 9]
```

a) [x**3 for x in l]
b) [x^3 for x in l]
c) [x**3 in l]
d) [x^3 in l]

8. What will be the output of the following Python code?

```
s={1, 2, 3}
s.update(4)
s
```

a) {1, 2, 3, 4}
b) {1, 2, 4, 3}
c) {4, 1, 2, 3}
d) Error

9. Which of the following functions cannot be used on heterogeneous sets?
a) pop
b) remove
c) update
d) sum

10. What will be the output of the following Python code?

```
s={4>3, 0, 3-3}
all(s)
any(s)
```

a)

```
True
False
```

b)

```
False
True
```

c)

```
True
True
```

d)

```
False
False
```