In [2]:
```
# 1 What will be the output of the following code snippet?


def func(a, b):
     return b if a == 0 else func(b % a, a)
print(func(30, 75))
# a) 10
# b) 20
# c) 15
# d) 0

# Answer :- c
```

```
15
```

In [4]:
```
# Question :2
numbers = (4, 7, 19, 2, 89, 45, 72, 22)
sorted_numbers = sorted(numbers)
even = lambda a: a % 2 == 0
even_numbers = filter(even, sorted_numbers)
print(type(even_numbers))
# a) Int
# b) Filter
# c) List
# d) Tuple
# Answer : b
```

```
<class 'filter'>
```

In [5]:
```
# 3) As what datatype are the *args stored, when passed into
# a) Tuple
# b) List
# c) Dictionary
# d) none

# Answer: a
```

In [7]:
```
# Question 4
set1 = {14, 3, 55}
set2 = {82, 49, 62}
set3={99,22,17}

print(len(set1 + set2 + set3))

# a) 105
# b) 270
# c) 0
# d) Error

# Answer: d
```

```
---------------------------------------------------------------------------
TypeError                                 Traceback (most recent call last)
Input In [7], in <cell line: 6>()
      3 set2 = {82, 49, 62}
      4 set3={99,22,17}
----> 6 print(len(set1 + set2 + set3))

TypeError: unsupported operand type(s) for +: 'set' and 'set'
```

In [ ]:
```
# Question 5

# 5) What keyword is used in Python to raise exceptions?
# a) raise
# b) try
# c) goto
# d) except

# Answer :a
```

In [ ]:
```
# Question 6 Which of the following modules need to be imported to handle date time co
# Python?
# a) timedate
# b) date
# c) datetime
# d) time

# Answer : c
```

In [10]:
```
# Question 7 What will be the output of the following code snippet?
print(4**3 + (7 + 5)**(1 + 1))
# a) 248
# b) 169
# c) 208
# d) 233

# Answer : c
```

```
208
```

In [ ]:
```
# Question 8- Which of the following functions converts date to corresponding time in
# a) strptime
# b) strftime
# c) both a) and b)
# d) None

# Answer : a
```

In [25]:
```
# Question 9- The python tuple is _____ in nature.
# a) mutable
# b)immutable
# c)unchangeable
# d) none

# Answer : b

name=('reena','kuldeep')
name[0]='rahul'
```

```
---------------------------------------------------------------------------
TypeError                                 Traceback (most recent call last)
Input In [25], in <cell line: 10>()
      1 # Question 9- The python tuple is _____ in nature.
      2 # a) mutable
      3 # b)immutable
   (...)
      6
      7 # Answer : b
      9 name=('reena','kuldeep')
---> 10 name[0]='rahul'

TypeError: 'tuple' object does not support item assignment
```

In [30]:
```
# Question 10 - The ___ is a built-in function that returns a range object
#  that consists series of integer numbers, which we can iterate using a for loop.
# A. range()
# B. set()
# C. dictionary{}
# D. None of the mentioned above

# Answer : a

range(0,10,2)
```

Out[30]:
```
range(0, 10, 2)
```

In [ ]:
```
# Question 11- Amongst which of the following is a function which does not have any na
# A. Del function
# B. Show function
# C. Lambda function
# D. None of the mentioned above

# Answer : c
```

In [ ]:
```
# Question 12 The module Pickle is used to ___.
# A. Serializing Python object structure
# B. De-serializing Python object structure
# C. Both A and B
# D. None of the mentioned above

# Answer : C
```

In [ ]:
```
# Question 13 - Amongst which of the following is / are the method of convert
# Python objects for writing data in a binary file?
# A. set() method
# B. dump() method
# C. load() method
# D. None of the mentioned above

# Answer : B
```

In [60]:
```
import pickle

name_city = {'kuldeep':'Delhi',
        'reena':'mumbai',
        'rahul':'jaipur'}
```

```
with open('name_and_city.pkl', 'wb') as file:

    pickle.dump(name_city, file)
```

In [ ]:
```
# Question 14- Amongst which of the following is / are the method used to
# unpickling data from a binary file?
# A. load()
# B. set() method
# C. dump() method
# D. None of the mentioned above

# Answer : A
```

In [61]:
```
import pickle

# Open the file in binary mode
with open('name_and_city.pkl', 'rb') as file:

        # Call load method to deserialze
        myvar = pickle.load(file)

        print(myvar)
```

```
{'kuldeep': 'Delhi', 'reena': 'mumbai', 'rahul': 'jaipur'}
```

In [ ]:
```
# Question 15 A text file contains only textual information consisting of ___.
# A. Alphabets
# B. Numbers
# C. Special symbols
# D. All of the mentioned above

# Answer : D
```

In [66]:
```
# Question 16

# Which Python code could replace the ellipsis (...)
# below to get the following output? (Select all that apply.)

captains = {
 "Enterprise": "Picard",
 "Voyager": "Janeway",
 "Defiant": "Sisko",
}
# Enterprise Picard,
# Voyager Janeway
# Defiant Sisko

# a) for ship, captain in captains.items():
#  print(ship, captain)
# b) for ship in captains:
#  print(ship, captains[ship])
# c) for ship in captains:
# print(ship, captains)
# d) both a and b
# Answer : d
```

```
Enterprise Picard
Voyager Janeway
Defiant Sisko
```

In [82]:
```
for ship, captain in captains.items():
    print(ship, captain)

for ship in captains:
    print(ship, captains[ship])
```

```
Enterprise Picard
Voyager Janeway
Defiant Sisko
Enterprise Picard
Voyager Janeway
Defiant Sisko
```

In [88]:
```
# Question 17- Which of the following lines of code will create an empty dictionary na
# a) captains = {dict}
# b) type(captains)
# c) captains.dict()
# d) captains = {}

# ANswer: d
captains= {}
captains
```

Out[88]:
```
{}
```

In [103…
```
# Quesion 18) Now you have your empty dictionary named captains. It's time to add some
# Specifically, you want to add the key-value pairs "Enterprise": "Picard", "Voyager":
# and "Defiant": "Sisko".
# Which of the following code snippets will successfully add these key-value pairs to
# existing captains dictionary?

# a) captains{"Enterprise" = "Picard"}
# captains{"Voyager" = "Janeway"}
# captains{"Defiant" = "Sisko"}

# b) captains["Enterprise"] = "Picard"
# captains["Voyager"] = "Janeway"
# captains["Defiant"] = "Sisko"

# c) captains = {
#   "Enterprise": "Picard",
#   "Voyager": "Janeway",
#   "Defiant": "Sisko",
# }

# d) None of the above


# Answer- B
captians={}
print(captians)

captains["Enterprise"] = "Picard"
captains["Voyager"] = "Janeway"
captains["Defiant"] = "Sisko"
print(captains)
```

```
{}
{'Enterprise': 'Picard', 'Voyager': 'Janeway', 'Defiant': 'Sisko'}
```

In [119…
```
# Question 19 You're really building out the Federation Starfleet now! Here's what you
captains = {
 "Enterprise": "Picard",
 "Voyager": "Janeway",
 "Defiant": "Sisko",
 "Discovery": "unknown",
}
# Now, say you want to display the ship and captain names contained in the dictionary,
# want to provide some additional context. How could you do it?
# a) for item in captains.items():
#  print(f"The [ship] is captained by [captain].")
# b) for ship, captain in captains.items():
#  print(f"The {ship} is captained by {captain}.")
# c) for captain, ship in captains.items():
#  print(f"The {ship} is captained by {captain}.")
# d) All are correct

# Answer : b

for ship,cap in captains.items():
    print(f"The {ship} is captained by {cap}.")
```

```
The Enterprise is captained by Picard.
The Voyager is captained by Janeway.
The Defiant is captained by Sisko.
The Discovery is captained by unknown.
```

In [148…
```
# Question 20 You've created a dictionary, added data, checked for the existence of ke
# and iterated over it with a for loop. Now you're ready to delete a key from this dic
captains = {
 "Enterprise": "Picard",
 "Voyager": "Janeway",
 "Defiant": "Sisko",
 "Discovery": "unknown",
}

# What statement will remove the entry for the key "Discovery"?
# a) del captains
# b) captains.remove()
# c) del captains["Discovery"]
# d) captains["Discovery"].pop()

# Answer : c
del captains["Discovery"]
captains
```

Out[148]:
```
{'Enterprise': 'Picard', 'Voyager': 'Janeway', 'Defiant': 'Sisko'}
```