

Possible Answers :

2

Question Number : 65 Question Id : 640653563166 Question Type : MSQ Is Question

Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 2 Selectable Option : 0

Question Label : Multiple Select Question

Which of the following denotes the column space of A ? (More than one option may be correct)

Options :

6406531882789. ✖ $\text{Span}\{(3, 2, 1)\}$

6406531882790. ✖ $\text{Span}\{(2, -1, 2)\}$

6406531882791. ✔ $\text{Span}\{(3, 2, 1), (2, -1, 2)\}$

6406531882792. ✔ $\text{Span}\{(3, 2, 1), (2, -1, 2), (1, 3, -1)\}$

Sem2 Intro to Python

Section Id :	64065338305
Section Number :	4
Section type :	Online
Mandatory or Optional :	Mandatory
Number of Questions :	26
Number of Questions to be attempted :	26
Section Marks :	100
Display Number Panel :	Yes

Group All Questions :	No
Enable Mark as Answered Mark for Review and Clear Response :	Yes
Maximum Instruction Time :	0
Sub-Section Number :	1
Sub-Section Id :	64065380230
Question Shuffling Allowed :	No
Is Section Default? :	null

Question Number : 66 Question Id : 640653563167 Question Type : MCQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 0

Question Label : Multiple Choice Question

THIS IS QUESTION PAPER FOR THE SUBJECT "FOUNDATION LEVEL : SEMESTER 2: INTRODUCTION TO PYTHON (COMPUTER BASED EXAM)"

ARE YOU SURE YOU HAVE TO WRITE EXAM FOR THIS SUBJECT?
CROSS CHECK YOUR HALL TICKET TO CONFIRM THE SUBJECTS TO BE WRITTEN.

(IF IT IS NOT THE CORRECT SUBJECT, PLS CHECK THE SECTION AT THE TOP FOR THE SUBJECTS REGISTERED BY YOU)

Options :

6406531882793.  YES

6406531882794.  NO

Sub-Section Number :	2
Sub-Section Id :	64065380231
Question Shuffling Allowed :	Yes
Is Section Default? :	null

Question Number : 67 Question Id : 640653563168 Question Type : MCQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 3

Question Label : Multiple Choice Question

Which of the following code blocks prints the product of the digits for the given number?

Options :

6406531882795. ✓

```
1 n = int(input())
2 total = 1
3 while(n > 0):
4     total = total * (n % 10)
5     n = n // 10
6 print(total)
```

6406531882796. ✗

```
1 n = int(input())
2 total = 1
3 while(n > 0):
4     total = total + (n % 10)
5     n = n // 10
6 print(total)
```

6406531882797. ✗

```
1 n = int(input())
2 total = 1
3 while(n > 0):
4     total = total * (n // 10)
5     n = n % 10
6 print(total)
```

6406531882798. ✗

```
1 n = int(input())
2 total = 1
3 while(n > 0):
4     total = total + (n // 10)
5     n = n % 10
6 print(total)
```

Question Number : 68 Question Id : 640653563169 Question Type : MCQ Is Question

Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 3

Question Label : Multiple Choice Question

What will be the output of the following Python code?

```
1 string1 = 'welcome'
2 string2 = 'hi hello'
3 L = []
4 for i in range(0, len(string1)):
5     for j in range(0, len(string2)):
6         if (string1[i] == string2[j]):
7             L.append(string1[i])
8             break
9         else:
10             continue
11 print(L)
```

Options :

6406531882799. ✖ 1 | ['e', 'e', 'l', 'l', 'o']

6406531882800. ✖ 1 | ['e', 'l', 'l', 'o', 'e']

6406531882801. ✔ 1 | ['e', 'l', 'o', 'e']

6406531882802. ✖ None of these

Question Number : 69 Question Id : 640653563170 Question Type : MCQ Is Question

Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 3

Question Label : Multiple Choice Question

What will be the output of the following Python code?

```
1 A = [[2, 2, 3], [3, 4, 5], [1, 0, 7]]
2 B = [[1, 1, 4], [4, 5, 2], [1, 4, 1]]
3 n = len(A)
4 C = [[0, 0, 0], [0, 0, 0], [0, 0, 0]]
5 for i in range(n):
6     for j in range(n):
7         C[i][j] = A[i][j] - B[i][j]
8         if j != n - 1:
9             print(C[i][j], end = ',')
10        else:
11            print(C[i][j])
```

Options :

6406531882803. ✖

1	3,3,-7
2	-7,-9,7
3	2,-4,8

6406531882804. ✖

1	3,3,7
2	7,9,7
3	2,4,8

6406531882805. ✖

1	1,1,1
2	1,1,3
3	0,4,6

6406531882806. ✔

1	1,1,-1
2	-1,-1,3
3	0,-4,6

Question Number : 70 Question Id : 640653563174 Question Type : MCQ Is Question

Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 3

Question Label : Multiple Choice Question

Consider the following snippet of code.

```
1 def func(L):
2     if L == []:
3         return 0
4     if L[0] % 2 == 0:
5         return 1 + func(L[1: ])
6     else:
7         return func(L[1:])
```

If **L** is a non-empty list of positive integers, which of the following statements is correct about the recursive function `func(L)` ?

Options :

6406531882819. ✖ It returns total number of odd elements in the list **L**

6406531882820. ✔ It returns total number of even elements in the list **L**

6406531882821. ✖ It returns sum of the even elements in the list **L**

6406531882822. ✖ It returns sum of the odd elements in the list **L**

Question Number : 71 Question Id : 640653563176 Question Type : MCQ Is Question

Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 3

Question Label : Multiple Choice Question

```
1 L = [('Arjun', 75), ('Anita', 85), ('Atul', 80), ('Anwer', 75), ('Andrew', 80)]
```

Each entry in `L` corresponds to a student and the marks he or she has scored in a Python exam. Write these details to a CSV file named `scores.csv`. The header should be `Name,Python`. The entries should be written to the file in the order in which they appear in the list `L`. Select the correct implementation of a function named `write_to_file` that accepts `L` as argument and writes to the file `scores.csv`.

Options :

```
1 def write_to_file(L):
2     f = open('scores.csv', 'w')
3     for i in range(len(L)):
4         name, marks = L[i]
5         line = f'{name},{marks}'
6         if i != len(L) - 1:
7             line = line + '\n'
8         f.write(line)
9     f.close()
```

6406531882828. ✖

```
1 def write_to_file(L):
2     f = open('scores.csv', 'w')
3     f.write('Name,Python')
4     for i in range(len(L)):
5         name, marks = L[i]
6         line = f'{name},{marks}'
7         if i != len(L) - 1:
8             line = line + '\n'
9         f.write(line)
10    f.close()
```

6406531882829. ✖

```
1 def write_to_file(L):
2     f = open('scores.csv', 'r')
3     f.write('Name,Python\n')
4     for i in range(len(L)):
5         name, marks = L[i]
6         line = f'{name},{marks}'
7         if i != len(L) - 1:
8             line = line + '\n'
9         f.write(line)
10    f.close()
```

6406531882830. ✖

6406531882831.

```

1 def write_to_file(L):
2     f = open('scores.csv', 'w')
3     f.write('Name,Python\n')
4     for i in range(len(L)):
5         name, marks = L[i]
6         line = f'{name},{marks}'
7         if i != len(L) - 1:
8             line = line + '\n'
9         f.write(line)
10    f.close()

```

Sub-Section Number : 3

Sub-Section Id : 64065380232

Question Shuffling Allowed : Yes

Is Section Default? : null

Question Number : 72 Question Id : 640653563171 Question Type : MCQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4

Question Label : Multiple Choice Question

What will be the output of the following Python code?

```

1 def new_fun(a):
2     s_L = []
3     while a != []:
4         x = a[0]
5         for i in a:
6             if i < x:
7                 x = i
8         a.remove(x)
9         s_L.append(x)
10    return s_L
11
12 L = [4, 7, 1, 3]
13 print(new_fun(L))

```

Options :

6406531882807. ✓ 1 | [1, 3, 4, 7]

6406531882808. ✖ 1 | [7, 4, 3, 1]

6406531882809. ✖ 1 | [1, 3, 7, 4]

6406531882810. ✖ 1 | [7, 4, 1, 3]

Question Number : 73 Question Id : 640653563172 Question Type : MCQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4

Question Label : Multiple Choice Question

Consider the following snippet of code. x is a real number. When `minmax(x, x)` is called, which return statement in the function is executed?

```
1 def minmax(a, b):  
2     if a <= b:  
3         return a, b  
4     return b, a
```

Options :

6406531882811. ✔ The return statement in line 3 which is inside the if-block

6406531882812. ✖ The return statement in line 4 which is outside the if-block

6406531882813. ✖ Both the return statements are executed

6406531882814. ✖ Neither return statement is executed

Question Number : 74 Question Id : 640653563173 Question Type : MCQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4

Question Label : Multiple Choice Question

We wish to populate a list `nums` of 10000 integers, where each integer is drawn at random from the range 1 to 10, both endpoints included. Which of the following code snippets can be used to achieve this?

Options :

6406531882815. ✓

```
1 import random
2
3 nums = []
4 for i in range(10000):
5     nums.append(random.randint(1, 10))
```

6406531882816. ✗

```
1 import random
2
3 nums = []
4 for i in range(10):
5     nums.append(random.randint(1, 10000))
```

6406531882817. ✗

```
1 import random
2
3 nums = []
4 for i in range(10000):
5     nums.append(random.randint(0, 11))
```

6406531882818. ✗

```
1 import random
2
3 nums = []
4 for i in range(10000):
5     nums.append(random.randint(1, 11))
```

Question Number : 75 Question Id : 640653563175 Question Type : MCQ Is Question

Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4

Question Label : Multiple Choice Question

Consider the following functions:

```
1 def f(n):
2     if n < 10:
3         return 1
4     return 1 + f(n // 10)
5
6 def g(n):
7     if n < 10:
8         return n
9     return n % 10 + g(n // 10)
10
11 def h(n):
12     if n <= 1:
13         return n
14     return n * h(n - 1)
```

Which of the following function calls returns the sum of the digits in 100!, where, $n!$ is the product of the first n positive integers?

Options :

6406531882823. ✖ `f(g(100))`

6406531882824. ✖ `f(h(100))`

6406531882825. ✔ `g(h(100))`

6406531882826. ✖ `h(g(100))`

6406531882827. ✖ `h(f(100))`

Question Number : 76 Question Id : 640653563177 Question Type : MCQ Is Question

Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4

Question Label : Multiple Choice Question

What is the output of the following snippet of code?

```
1 def quotient(a, b):
2     try:
3         q = a // b
4         return q
5     except TypeError:
6         print('Cannot divide strings')
7     except ZeroDivisionError:
8         print('Division by 0 is not allowed')
9     finally:
10        print('I will always be executed')
11
12 x = quotient('10', '5')
13 x = quotient(10, 0)
14 x = quotient(10, 5)
15 print(x)
```

Options :

```
1 Cannot divide strings
2 Division by 0 is not allowed
3 2
```

6406531882832. ✖

```
1 Division by 0 is not allowed
2 2
```

6406531882833. ✖

```
1 I will always be executed
2 I will always be executed
3 I will always be executed
4 2
```

6406531882834. ✖

```
1 Cannot divide strings
2 I will always be executed
3 Division by 0 is not allowed
4 I will always be executed
5 I will always be executed
6 2
```

6406531882835. ✔

6406531882836. ✖

```
1 | Cannot divide strings
2 | I will always be executed
3 | Division by 0 is not allowed
4 | I will always be executed
5 | I will always be executed
```

Question Number : 77 Question Id : 640653563179 Question Type : MCQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4

Question Label : Multiple Choice Question

What is the output of the following snippet of code?

```
1 | L = ['one', 'two', 'one', 'three', 'one']
2 | freq = {word: L.count(word) for word in L}
3 | print(freq)
```

Options :

6406531882842. ✖ 1 | {'one': 3}, {'two': 1}, {'three': 1}

6406531882843. ✔ 1 | {'one': 3, 'two': 1, 'three': 1}

6406531882844. ✖ 1 | [['one', 3], ['two', 1], ['three', 1]]

6406531882845. ✖ 1 | [{'one': 3}, {'two': 1}, {'three': 1}]

Question Number : 78 Question Id : 640653563180 Question Type : MCQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4

Question Label : Multiple Choice Question

Given a string `s`, find the first occurrence of the substring `not` and `bad`. If `not` is followed by `bad` then replace the whole `not ... bad` substring with `good` and return the updated string.

For example, If the string is `This dinner is not that bad!` then function should return the string `This dinner is good!`.

Which of the following option is the correct implementation for the given problem statement?

find() method

- It returns the first occurrence of the specified value from left.
- It returns -1 if the value is not found.

Options :

6406531882846. ✖

```
1 def not_bad(s):
2     n = s.find('not')
3     b = s.find('bad')
4     if n != -1 and b != -1 and b < n:
5         s = s[:n] + 'good' + s[b + 3:]
6     return s
```

6406531882847. ✔

```
1 def not_bad(s):
2     n = s.find('not')
3     b = s.find('bad')
4     if n != -1 and b != -1 and b > n:
5         s = s[:n] + 'good' + s[b + 3:]
6     return s
```

6406531882848. ✖

```
1 def not_bad(s):
2     n = s.find('not')
3     b = s.find('bad')
4     if n != -1 and b != -1 and b > n:
5         s = s[:n] + 'good' + s[b:]
6     return s
```

6406531882849. ✖

```
1 def not_bad(s):
2     n = s.find('not')
3     b = s.find('bad')
4     if n != -1 and b != -1 and b > n:
5         s = s[:n + 3] + 'good' + s[b + 3:]
6     return s
```

Sub-Section Number :	4
Sub-Section Id :	64065380233
Question Shuffling Allowed :	Yes
Is Section Default? :	null

Question Number : 79 Question Id : 640653563178 Question Type : MCQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5

Question Label : Multiple Choice Question

What is the output of the following code snippet?

```
1 D = {'Anita': 23, 'Ashwin': 43, 'Ahana': '24', 'Adarsh': 30, 'Archana': 15}
2 try:
3     for key in D:
4         value = D[key]
5         if type(value) == str:
6             raise 'Error'
7         print(f'{key}:{value}')
8 except:
9     print("values cannot be strings")
```

Options :

6406531882837. ✖

1 Anita:23
2 Ashwin:43
3 Ahana:24
4 Adarsh:30
5 Archana:15

6406531882838. ✖

1 Anita:23
2 Ashwin:43

6406531882839. ✖

1 values cannot be strings

6406531882840. ✔

1 Anita:23
2 Ashwin:43
3 values cannot be strings

6406531882841. ✖

```
1 Anita:23
2 Ashwin:43
3 values cannot be strings
4 Adarsh:30
5 Archana:15
```

Sub-Section Number : 5
Sub-Section Id : 64065380234
Question Shuffling Allowed : Yes
Is Section Default? : null

Question Number : 80 Question Id : 640653563182 Question Type : MSQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 3 Selectable Option : 0

Question Label : Multiple Select Question

Select the correct code block(s) that perform the following task:

1. Accept two strings as input
2. Print `Ascending` if the first string comes before the second in alphabetical order
3. `Descending` otherwise

For example, if the input is as follows:

```
1 java
2 python
```

then the expected output is `Ascending` because `python` comes after `java`. Assume that all the strings consist of only one word and will be entered in lowercase during the time of input.

Options :

```
1 str1 = input()
2 str2 = input()
3 if(str1 < str2):
4     print("Ascending")
5 else:
6     print("Descending")
```

6406531882854. ✔

6406531882855. ✖

```
1 str1 = input()
2 str2 = input()
3 if(str1 > str2):
4     print("Ascending")
5 else:
6     print("Descending")
```

6406531882856. ✔

```
1 if(input() < input()):
2     print("Ascending")
3 else:
4     print("Descending")
```

6406531882857. ✖

```
1 if(input() > input()):
2     print("Ascending")
3 else:
4     print("Descending")
```

6406531882858. ✔

```
1 str1 = input()
2 str2 = input()
3 result = str1 < str2
4 if(result == True):
5     print("Ascending")
6 else:
7     print("Descending")
```

6406531882859. ✖

```
1 str1 = input()
2 str2 = input()
3 result = str1 > str2
4 if(result == True):
5     print("Ascending")
6 else:
7     print("Descending")
```

Question Number : 81 Question Id : 640653563184 Question Type : MSQ Is Question

Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 3 Selectable Option : 0

Question Label : Multiple Select Question

Select all code snippets that run without any error.

Options :

6406531882864. ✓

```
1 | a, b = (1, 2)
2 | print(a)
3 | print(b)
```

6406531882865. ✓

```
1 | a, b, c = (1, 2, 3)
2 | print(a)
3 | print(b)
4 | print(c)
```

6406531882866. ✗

```
1 | a, b = (1, 2, 3)
2 | print(a)
3 | print(b)
4 | print(c)
```

6406531882867. ✗

```
1 | a, b, c, d = (1, 2, 3)
2 | print(a)
3 | print(b)
4 | print(c)
5 | print(d)
```

Sub-Section Number :

6

Sub-Section Id :

64065380235

Question Shuffling Allowed :

Yes

Is Section Default? :

null

Question Number : 82 Question Id : 640653563181 Question Type : MSQ Is Question

Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Selectable Option : 0

Question Label : Multiple Select Question

Select the correct code snippet(s) which can be used to reverse the given integer `num`. For example, if the input is 3456 then the output should be 6543.

Options :

```
1 reversed_num = 0
2 while num != 0:
3     digit = num % 10
4     reversed_num = reversed_num * 10 + digit
5     num //= 10
6 print(reversed_num)
```

6406531882850. ✓

```
1 print(str(num)[::-1])
```

6406531882851. ✓

```
1 reversed_num = 0
2 while num != 0:
3     digit = num % 10
4     num /= 10
5     reversed_num = reversed_num * 10 + digit
6 print(reversed_num)
```

6406531882852. ✗

```
1 print(str(num)[-1:])
```

6406531882853. ✗

Question Number : 83 Question Id : 640653563183 Question Type : MSQ Is Question

Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4 Selectable Option : 0

Question Label : Multiple Select Question

Select all correct implementations of a function named `concatenate` that accepts two lists `P` and `Q` as arguments and returns the concatenated list `P + Q`.

Options :

6406531882860. ✓

```

1 def concatenate(P, Q):
2     R = []
3     for x in P:
4         R.append(x)
5     for x in Q:
6         R.append(x)
7     return R

```

```

1 def concatenate(P, Q):
2     R = []
3     for x in Q:
4         R.append(x)
5     for x in P:
6         R.append(x)
7     return R

```

6406531882861. ✖

```

1 def copy(P):
2     L = []
3     for x in P:
4         L.append(x)
5     return L
6
7 def concatenate(P, Q):
8     R = copy(Q)
9     for x in P:
10        R.append(x)
11    return R

```

6406531882862. ✖

```

1 def copy(P):
2     L = []
3     for x in P:
4         L.append(x)
5     return L
6
7 def concatenate(P, Q):
8     R = copy(P)
9     for x in Q:
10        R.append(x)
11    return R

```

6406531882863. ✔

Sub-Section Number :

7

Sub-Section Id :

64065380236

Question Shuffling Allowed :

Yes

Is Section Default? :

null

Question Number : 84 Question Id : 640653563185 Question Type : MSQ Is Question

Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Selectable Option : 0

Question Label : Multiple Select Question

If `M` is an `n x n` matrix, create the transpose of the matrix `M` and store the result in the matrix `M_t`. Select all correct implementations of this program.

Options :

6406531882868. ✓

```
1 M_t = [[M[j][i] for j in range(len(M))] for i in range(len(M))]
```

6406531882869. ✗

```
1 M_t = [[M[i][j] for j in range(len(M))] for i in range(len(M))]
```

6406531882870. ✓

```
1 M_t = []
2 n = len(M)
3 for i in range(n):
4     M_t.append([])
5     for j in range(n):
6         M_t[-1].append(M[j][i])
```

6406531882871. ✗

```
1 M_t = []
2 n = len(M)
3 for j in range(n):
4     M_t.append([])
5     for i in range(n):
6         M_t[-1].append(M[j][i])
```

6406531882872. ✗

```
1 M_t = [[M[j][i] for i in range(len(M))] for j in range(len(M))]
```

6406531882873. ✓

```
1 M_t = [[M[i][j] for i in range(len(M))] for j in range(len(M))]
```

Question Number : 85 Question Id : 640653563186 Question Type : MSQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Selectable Option : 0

Question Label : Multiple Select Question

Let `L` be a `m x m` matrix of numbers that has already been defined and populated. We wish to find the sum of the elements in each column and store all such column-sums in a list called `colsum`. Columns are indexed from `0` to `m - 1`. For the j^{th} column, `colsum[j]` should be the sum of all elements in that column. Select all correct code snippets that achieve this.

Options :

```
1 colsum = []
2 m = len(L)
3 row, col = 0, 0
4 while col < m:
5     colsum.append(0)
6     while row < m:
7         colsum[col] += L[row][col]
8         row += 1
```

6406531882874. ✖

```
1 colsum = []
2 m = len(L)
3 row, col = 0, 0
4 while col < m:
5     colsum.append(0)
6     while row < m:
7         colsum[col] += L[row][col]
8         row += 1
9     col += 1
```

6406531882875. ✖

6406531882876. ✔

```

1 colsum = []
2 m = len(L)
3 row, col = 0, 0
4 while col < m:
5     row = 0
6     colsum.append(0)
7     while row < m:
8         colsum[col] += L[row][col]
9         row += 1
10    col += 1

```

6406531882877. ✖

```

1 colsum = []
2 m = len(L)
3 for j in range(m):
4     val = 0
5     for i in range(m):
6         val = val + L[j][i]
7     colsum.append(val)

```

6406531882878. ✔

```

1 colsum = []
2 m = len(L)
3 for j in range(m):
4     val = 0
5     for i in range(m):
6         val = val + L[i][j]
7     colsum.append(val)

```

Question Number : 86 Question Id : 640653563187 Question Type : MSQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5 Selectable Option : 0

Question Label : Multiple Select Question

Consider the following snippet of code:

```
1 def f(word, n):
2     P = dict()
3     for c in word:
4         if c not in P:
5             P[c] = 0
6         P[c] += 1
7     for c in P:
8         if P[c] == n:
9             return True
10    return False
11
12 if some_word.isalpha():
13     print(True)
14 print(f(some_word, 5))
```

`some_word` is a string variable that has already been defined. The above code runs without any errors.

The output when the code given above is executed is as follows:

```
1 True
2 True
```

Which of the following statements are True? Note that your answer should hold for any value of the string `some_word` that results in the above output.

Options :

6406531882879. ✓ `some_word` is only made up of alphabets

6406531882880. ✗ `some_word` could also contain numbers

6406531882881. ✓ `len(some_word)` is at least 5

6406531882882. ✓ At least one letter in the English alphabet occurs exactly five times in `some_word`

6406531882883. ✗ Exactly one letter in the English alphabet occurs at least five times in `some_word`

Sub-Section Id : 64065380237

Question Shuffling Allowed : Yes

Is Section Default? : null

Question Number : 87 Question Id : 640653563188 Question Type : SA Calculator : None

Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4

Question Label : Short Answer Question

`scores.csv` is a CSV file that has the following contents:

```
1 SeqNo,Name,Gender,CT,Python,PDSA
2 0,Ram,M,80,90,100
3 1,Sahana,F,90,80,70
4 2,Ritvik,M,80,100,80
5 3,Suchitra,F,100,100,100
6 4,Praful,M,60,70,85
7 5,Aisha,F,85,95,90
8 6,Andrew,M,100,65,75
9 7,Soundarya,F,85,75,65
10 8,Krishnan,M,95,85,90
11 9,Brinda,F,65,95,85
```

What is the output of the following snippet of code?

```
1 def do_something(filename, sub):
2     f = open(filename, 'r')
3     f.readline()
4     val, count = 0, 0
5
6     for line in f:
7         sno, name, gender, ct, python, pdsa = line.strip().split(',')
8         sno, ct, python, pdsa = int(sno), int(ct), int(python), int(pdsa)
9         if sub == 'CT':
10             val = val + ct
11         elif sub == 'Python':
12             val = val + python
13         elif sub == 'PDSA':
14             val = val + pdsa
15         count = count + 1
16     f.close()
17     return val / count
18
19 print(int(do_something('scores.csv', 'Python')))
```

Response Type : Numeric

Evaluation Required For SA : Yes

Show Word Count : Yes

Answers Type : Equal

Text Areas : PlainText

Possible Answers :

85

Sub-Section Number : 9

Sub-Section Id : 64065380238

Question Shuffling Allowed : Yes

Is Section Default? : null

Question Number : 88 Question Id : 640653563189 Question Type : SA Calculator : None

Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 3

Question Label : Short Answer Question

Consider the following snippet of code:

```
1 L = [1, 2, 3, 4, 5]
2 S = []
3 T = 0
4 i = 0
5 while i < len(L):
6     S += L[:i] + L[i:]
7     for j in S:
8         T += j
9     i += 1
```

What will be the value of `len(S)` at the end of execution of the above code?

Response Type : Numeric

Evaluation Required For SA : Yes

Show Word Count : Yes

Answers Type : Equal

Text Areas : PlainText

Possible Answers :

Question Number : 89 Question Id : 640653563190 Question Type : SA Calculator : None

Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 3

Question Label : Short Answer Question

What is the output of the following snippet of code?

```
1 def log(x, y):  
2     if x < y:  
3         return 0  
4     return 1 + log(x // y, y)  
5  
6 log1 = log(256, 16)  
7 log2 = log(16, 2)  
8 log3 = log(27, 3)  
9  
10 print(log1 + log2 + log3)
```

Response Type : Numeric

Evaluation Required For SA : Yes

Show Word Count : Yes

Answers Type : Equal

Text Areas : PlainText

Possible Answers :

9

Sub-Section Number : 10

Sub-Section Id : 64065380239

Question Shuffling Allowed : No

Is Section Default? : null

Question Id : 640653563191 Question Type : COMPREHENSION Sub Question Shuffling Allowed : No Group Comprehension Questions : No Question Pattern Type : NonMatrix Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Question Numbers : (90 to 93)

Question Label : Comprehension

Assume the values of Boolean variables **A** and **B** are **True** and **False** respectively.
What will be output of the given code snippets?

Based on the above data, answer the given subquestions.

Sub questions

Question Number : 90 Question Id : 640653563192 Question Type : MCQ Is Question

Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1

Question Label : Multiple Choice Question

```
1 | print(not (A and B), not(A) and B)
```

Options :

6406531882887. ✖ 1 | False False

6406531882888. ✔ 1 | True False

6406531882889. ✖ 1 | False True

6406531882890. ✖ 1 | True True

Question Number : 91 Question Id : 640653563193 Question Type : MCQ Is Question

Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1

Question Label : Multiple Choice Question

```
1 | print(A or B and A or not(B))
```

Options :

6406531882891.



1 | False

6406531882892. ✖

1 | True False

6406531882893. ✖

1 | False True

6406531882894. ✔

1 | True

Question Number : 92 Question Id : 640653563194 Question Type : MCQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 1

Question Label : Multiple Choice Question

1 | `print(not(A or B), not(A) or B)`

Options :

6406531882895. ✔

1 | False False

6406531882896. ✖

1 | True False

6406531882897. ✖

1 | False True

6406531882898. ✖

1 | True True

Question Number : 93 Question Id : 640653563195 Question Type : MCQ Is Question Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction

Time : 0

Correct Marks : 1

Question Label : Multiple Choice Question

```
1 | print(not A and B or A and B)
```

Options :

6406531882899. ✓ 1 | False

6406531882900. ✗ 1 | True False

6406531882901. ✗ 1 | False True

6406531882902. ✗ 1 | True

Sub-Section Number : 11

Sub-Section Id : 64065380240

Question Shuffling Allowed : No

Is Section Default? : null

Question Id : 640653563196 Question Type : COMPREHENSION Sub Question Shuffling Allowed : No Group Comprehension Questions : No Question Pattern Type : NonMatrix Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Question Numbers : (94 to 95)

Question Label : Comprehension

Consider the class `Product`:

```
1 class Product:
2     def __init__(self, title, price):
3         self.title = title
4         self.price = price
5
6     def change_price(self, price):
7         self.price = price
8
9     def print_info(self):
10        print(f'Product title: {self.title}')
11        print(f'Product price: {self.price}')
```

`Book` is a sub-class of `Product`:

```
1 class Book(Product):
2     count = 0
3     def __init__(self, title, price, author, genre):
4         super().__init__(title, price)
5         self.author = author
6         self.genre = genre
7         Book.count += 1
8
9     def is_fiction(self):
10        return self.genre == 'Fiction'
11
12    def print_info(self):
13        super().print_info()
14        print('Product is a book')
15        print(f'Author: {self.author}')
16        print(f'Genre: {self.genre}')
```

Based on the above data, answer the given subquestions.

Sub questions

Question Number : 94 Question Id : 640653563197 Question Type : MCQ Is Question

Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 5

Question Label : Multiple Choice Question

What is the output of the following snippet of code?

```
1 book = Book('Wings of Fire', 250, 'Dr. Kalam', 'Non Fiction')
2 book.change_price(300)
3 book.print_info()
```

Options :

6406531882903. ✖

```
1 Product title: Wings of Fire
2 Product price: 300
```

6406531882904. ✖

```
1 Product title: wings of Fire
2 Product price: 250
```

6406531882905. ✖

```
1 Product is a book
2 Author: Dr. Kalam
3 Genre: Non Fiction
```

6406531882906. ✖

```
1 Product title: wings of Fire
2 Product price: 250
3 Product is a book
4 Author: Dr. Kalam
5 Genre: Non Fiction
```

6406531882907. ✔

```
1 Product title: wings of Fire
2 Product price: 300
3 Product is a book
4 Author: Dr. Kalam
5 Genre: Non Fiction
```

Question Number : 95 Question Id : 640653563198 Question Type : MCQ Is Question

Mandatory : No Calculator : None Response Time : N.A Think Time : N.A Minimum Instruction Time : 0

Correct Marks : 4

Question Label : Multiple Choice Question

Assume that `library` represents a list of objects of type `Book`. What does the variable `count` represent at the end of execution of this code?

```
1 # assume that library has n elements, only three of which are shown below
2 Book.count = 0
3 library = [Book('A Brief History of Time', 250, 'Hawking', 'Non Fiction'),
4            Book('Alice in Wonderland', 300, 'Carroll', 'Fiction'),
5            Book('Feynman Lectures in Physics', 400, 'Feynman', 'Non Fiction')]
6
7 count = 0
8 for book in library:
9     if book.is_fiction():
10         count = count + 1
```

Options :

6406531882908. ✓ Number of fiction books in the library

6406531882909. ✗ Number of non-fiction books in the library

6406531882910. ✗ Number of books in the library

6406531882911. ✗ None of these

Sem2 English2

Section Id :	64065338306
Section Number :	5
Section type :	Online
Mandatory or Optional :	Mandatory
Number of Questions :	36
Number of Questions to be attempted :	36
Section Marks :	100
Display Number Panel :	Yes
Group All Questions :	No
Enable Mark as Answered Mark for Review and Clear Response :	Yes