Assignment 5

The due date for submitting this assignment has passed. Due on 2020-03-04, 23:59 IST. As per our records you have not submitted this assignment.

1) What does the following code do?  

```python
import random

def get_gates():
    r = random.randint(0, 2)
    rl = random.randint(0, 2)
    while (r == rl):
        r = random.randint(0, 2)
    l = ['x', 'x', 'x']
    l[r] = 'c'
    l[rl] = 'c'
    ind = [0, 1, 2]
    for each in ind:
        if (each != rl and each != r):
            l[each] = 'g'

print(l)
```

- creates a list where two random elements are ‘c’ and the other element is ‘g’
- creates a list where two random elements are ‘g’ and the other element is ‘c’
- creates a list where one random elements is ‘c’ and the other element is ‘g’
- none of the above

No, the answer is incorrect. Score: 0

Accepted Answers:
creates a list where two random elements are 'c' and the other element is 'g'

2) Which of the random experiments from the options does the code represent?

```python
import random
while (1):
    r=random.randint(0,1)
    if (r==0):
        print ('tossing ')
        break
    else:
        print ('tossing ')
```

- Tossing a coin once
- Tossing a coin infinite times
- Tossing a coin repeatedly till a head in encountered
- none of the above

No, the answer is incorrect.
Score: 0
Accepted Answers:
none of the above

3) Which of the random experiments from the options does the code represent?

```python
import random
p1=['rock','paper','scissor']
p2=['rock','paper','scissor']
c1=random.choice(p1)
c2=random.choice(p2)
if (c1==c2):
    print("SUCCESS")
else:
    print("FAIL")
```

- Prints a success when both people select the same object
- Prints a success when both people select "rock"
- Prints a success when both people select different objects
- None of the above

No, the answer is incorrect.
Score: 0
Accepted Answers:
Prints a success when both people select the same object

4) For the code below, which of the statement in the options is false?

```python
t=[]
for i in range(10):
    a=int(input("Enter the number you want to insert in the list"))
    if (len(t)==0):
        t.append(a)
    else:
        if (a>t[len(t)-1]):
            t.append(a)
p=print(t)
```
5) Which of the random experiments from the options does the code represent?  

```python
import random
bins=[]
for i in range(1,11):
    bins[i]=0
for i in range(1,101):
    r = random.randint(1,10)
bins[r] = bins[r]+1
print(bins)
```

- Placing 100 bins and then throwing 10 balls randomly in these bins  
- Placing 10 bins and then throwing 100 balls randomly in these bins  
- Placing 10 bins and 10 balls and then throwing 10 balls randomly in these bins  
- None of the above  

No, the answer is incorrect.  
Score: 0  
Accepted Answers:  
Placing 10 bins and then throwing 100 balls randomly in these bins

Assuming that “bins” represents a dictionary where key is the number of a bin and value represents the number of balls present in the corresponding bin, what is the output of the following code?

```python
min_=0
min_i=-1
for each in bins:
    if (bins[each]>min_):
        min_i=each
        min_=bins[each]
print(min_i)
```

- Displays the maximum number of balls present in any bin  
- Displays the number of the bin containing maximum balls  
- Displays the number of the bin containing minimum balls  
- None of the above  

No, the answer is incorrect.  
Score: 0  
Accepted Answers:  
Displays the number of the bin containing maximum balls

7) Assuming that “bins” represents a dictionary where key is the number of a bin and value represents the number of balls present in the corresponding bin, what is the output of the following code?
def mbin():
    max_ = 0
    max_i = -1
    for each in bins:
        if (bins[each] > max_):
            max_i = each
            max_ = bins[each]
    print(max_i)
    return max_i

while (len(bins) > 0):
    b = mbin()
    del(bins[b])

Displays the maximum number of balls present in any bin
Displays bins in the ascending order of the number of balls they have
Displays bins in the descending order of the number of balls they have
None of the above

No, the answer is incorrect.
Score: 0
Accepted Answers:
Displays bins in the descending order of the number of balls they have

def find(lst1, num):
    for each in lst1:
        if (each != num):
            print(each)
        else:
            break

    t = []
    for i in range(100000):
        t.append(i)

    find(t, 99999)

The above code generates numbers from
0 to 999999
0 to 100000
0 to 99998
1 to 99998

No, the answer is incorrect.
Score: 0
Accepted Answers:
0 to 99998

9) Which of the random experiments from the options does the code represent?
import random

while (1):
    r = random.randint(1, 6)
    if (r % 2 == 0):
        print('rolling')
        break
    else:
        print('rolling')

- Rolling a dice once
- Rolling a dice infinite times
- Rolling a dice repeatedly till an odd number is encountered
- Rolling a dice repeatedly till an even number is encountered

No, the answer is incorrect.
Score: 0
Accepted Answers:
Rolling a dice repeatedly till an even number is encountered

10) Assuming that “bins” represents a dictionary where key is the number of a bin and value represents the number of balls present in the corresponding bin, what plot does the following code generate?

import matplotlib.pyplot as plt
val = bins.values()
x = []
y = []
print(val)
for each in list(set(val)):
    x.append(each)
y.append(val.count(each))
plt.plot(x, y)
plt.show()

- X axis: Number of balls, Y axis: Number of bins having as many balls as specified by X axis
- X axis: Bin number, Y axis: Number of balls in the bin whose number is specified by X axis
- X axis: Ball number, Y axis: The bin number which contained the ball whose number is specified by the X axis
- None of the above

No, the answer is incorrect.
Score: 0
Accepted Answers:
None of the above