Question 1

Assignment 3

**The due date for submitting this assignment has passed. Due on 2020-02-19, 23:59 IST.
As per our records you have not submitted this assignment.**

1) Which of the following displays a code which iterates from numbers 1 to 100, displays "fizz" if **1 point** the number is divisible by *a* but not *b*, displays
    "buzz" if the number is divisible by *b* but not *a* and displays "fizzbuzz" if the number is divisible by both *a* and *b*. *a* and *b* are
    inputs taken from the user.

○
```
1 a = int(input("Enter the value of a"))
2 b= int(input("Enter the value of b"))
3 for i in range(1,101):
4     if(i%a==0):
5         print("fizz")
6     if(i%b==0):
7         print("buzz")
8     else:
9         print("fizzbuzz")
```

○
```
1 a = int(input("Enter the value of a"))
2 b= int(input("Enter the value of b"))
3 for i in range(1,101):
4     if(i%a==0):
5         if(i%b!=0):
6             print("fizz")
7     if(i%b==0):
8         if(i%a!=0):
9             print("buzz")
10        else:
11            print("fizzbuzz")
```

○
```
1 a = int(input("Enter the value of a"))
2 b= int(input("Enter the value of b"))
3 for i in range(1,101):
4     if(i%a==0):
5         if(i%b!=0):
6             print("fizz")
7     if(i%b==0):
8         if(i%a!=0):
9             print("buzz")
10        else:
11            print("fizzbuzz")
```

```
1  a = int(input("Enter the value of a"))
2  b= int(input("Enter the value of b"))
3  for i in range(1,101):
4      if(i%a==0):
5          if(i%b!=0):
6              print("fizz")
7      else:
8          if(i%a!=0):
9              print("buzz")
10         else:
11             print("fizzbuzz")
```

No, the answer is incorrect.
Score: 0

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

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```
1  a = int(input("Enter the value of a"))
2  b= int(input("Enter the value of b"))
3  for i in range(1,101):
4      if(i%a==0):
5          if(i%b!=0):
6              print("fizz")
7      if(i%b==0):
8          if(i%a!=0):
9              print("buzz")
10         else:
11             print("fizzbuzz")
```

Question 2

Assignment 4

The due date for submitting this assignment has passed. **Due on 2020-02-26, 23:59 IST.**
As per our records you have not submitted this assignment.

1) What does the check_magic() function in the following code do   *1 point*

```
 1  def check_magic():
 2     num=[1,2,3,4,5,6,7,8,9]
 3     a00=0
 4     a01=0
 5     a10=0
 6     a11=0
 7     for i in range(0,9):
 8        for j in range(0,9):
 9           for k in range(0,9):
10              for l in range(0,9):
11                 a00=num[i]
12                 a01=num[j]
13                 a10=num[k]
14                 a11=num[l]
15                 l=[a00,a01,a10,a11]
16
17                 print a00,'\t',a01,'\n',a10,'\t',a11
18                 print '\n'
```

○ displays all 2 × 2 matrices where elements are from 1 to 9.

○ displays all 2 × 2 matrices where elements are from 1 to 9.

○ displays all 2 × 2 matrices where elements are from 1 to 9 but no element is repeated

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○ displays magic squares of size 2

○ none of the above

No, the answer is incorrect.
Score: 0
Accepted Answers:
displays all 2 × 2 matrices where elements are from 1 to 9.

Question 3

3) Leap years are the years   *1 point*
      1. which divisible by 4 but not divisible by 100, and, those
      2. divisible by 400
Which of the following code does not represent a code displaying all the leap years from 1 to 2000.

```python
d4 =[]
d100 =[]
d400 =[]
for i in range(1,2001):
    if(i%4==0):
        d4.append(i)
    if(i%100==0):
        d100.append(i)
    if(i%400==0):
        d400.append(i)
ly =[]
for each in d4:
    if each not in d100:
        ly.append(each)
for each in d400:
    ly.append(each)
print(ly)
```

```
1  ly =[]
2  for  i  in  range (1 ,2001):
3      if ( i %4==0):
4          if ( i %100!=0):
5              ly . append ( i )
6          else :
7              if ( i %400==0):
8                  ly . append ( i )
9  print ( ly )
```

```
1  ly =[]
2  for  i  in  range (1 ,2001):
3      if ( i %400==0):
4          ly . append ( i )
5      else :
6          if ( i %4==0):
7              ly . append ( i )
8  print ( ly )
```

```
1  ly =[]
2  for  i  in  range (1 ,2001):
3      if ( i %400==0  or  ( i %100!=0  and  i %4==0)):
4          ly . append ( i )
5  print ( ly )
```

No, the answer is incorrect.
Score: 0

No, the answer is incorrect.
Score: 0

Accepted Answers:

```
1  ly =[]
2  for  i  in  range (1 ,2001):
3      if ( i %400==0):
4          ly . append ( i )
5      else :
6          if ( i %4==0):
7              ly . append ( i )
8  print ( ly )
```

Question 4

10)Assume a drunkard whose movement is defined on the number line, i.e. he can either move   *1 point*

forward or backward. Assume he is

standing at a position *p*. He takes 2 steps forward followed by 4 steps backward. He falls into the

pit as soon as he steps

on the position zero. Which of the following codes correctly represents his walk? A.

○

```
p= int(input())
while (p >0):
    p=p+2
     print("Location =", p)
    p=p-4
     print("Location =", p)
print(" Fell in pit at location ", p)
```
○

```
p= int(input())
while (p >0):
    p=p-2
     print("Location =", p)
    p=p+4
     print("Location =", p)
print(" Fell in pit at location ", p)
```
○

```
p= int(input())
while (p >0):
    for i in range ( 2 ):
        p=p+1
         print(" Loc = ", p)
```

```
                if ( p ==0):
                            break
            for i in range ( 4 ) :
                    p=p−1
                    print(" Loc = " , p )
                    if ( p ==0):
                            break
        print(" Fell in pit at location " , p )
```

○ none of these

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

```
p= int(input())
while (p >0):
        for i in range ( 2 ) :
                p=p+1
                print(" Loc = ", p )
                if ( p ==0):
                            break
        for i in range ( 4 ) :
                p=p−1
                print(" Loc = ", p )
                if ( p ==0):
                        break
    print(" Fell in pit at location " , p )
```

Question 5

1) What does the following code do?

```
1  import random
2  def get_gates ():
3      r=random . randint (0 ,2)
4      r1=random . randint (0 ,2)
5      while ( r==r1 ):
6          r=random . randint (0 ,2)
7      l =[ 'x', 'x', 'x']
8      l[ r]= 'c'
9      l[ r1]= 'c'
10     ind =[0 ,1 ,2]
11     for each in ind :
12         if (each!=r1 and each!=r):
13             l[ each]= 'g'
14     print(l)
15
16 get_gates ()
```

○ 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:

No, the answer is incorrect.
Score: 0

Accepted Answers:

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

Question 6

8)

```
1  def find (list1 ,num):
2    for each in list1:
3      if (each !=num):
4        print (each)
5      else:
6        break
7
8  t =[]
9  for i in range (100000):
10   t.append (i)
11
12 find (t,99999)
```

The above code generates numbers from

- ○ 0 to 99999
- ○ 0 to 100000
- ○ 0 to 99998
- ○ 1 to 99998

No, the answer is incorrect.
Score: 0

Accepted Answers:
0 to 99998

Question 7

1) Predict the output

```
1   l = [[1 ,2 ,3] ,[4 ,5 ,6] ,[7 ,8 ,9]]
2   f=1
3   for j in range(3):
4       if (f==1):
5           for i in range(3):
6               print(l[i][j],end=" ")
7           f=0
8       if (f==0):
9           for i in range(2,-1,-1):
10              print(l[i][j],end=" ")
11          f=1
```

○ 7 4 1 1 4 7 2 5 8 8 5 2 3 6 9 9 6 3

○ 1 4 7 2 5 8 3 6 9

○ 1 4 7 8 5 2 3 6 9

○ 1 4 7 7 4 1 2 5 8 8 5 2 3 6 9 9 6 3

No, the answer is incorrect.
Score: 0

Accepted Answers:
1 4 7 7 4 1 2 5 8 8 5 2 3 6 9 9 6 3

Question 8

4) Which of the following libraries is required to work with Google maps in Python?

○ gplot

○ googleplot

○ gmplot

○ none of these

No, the answer is incorrect.
Score: 0

Accepted Answers:
gmplot

Question 9

5) Which of the following codes represent a correct version of a board game where the user has **1 point** to move from block 1 to block 100?

The game initialises only when the user gets a 1 or 6 on the dice and ends once he reaches 100 or gets a number which makes

him reach beyond 100 (i.e. the player wins if he is at 99 and gets a 4).

○

```python
1  import random
2  def play(psn):
3      r = random.randint(1,6)
4      if(psn==0):
5          if(r==1 or r==6):
6              psn=1
7          else:
8              psn=psn+r
9      print("Position=",psn)
10     if(psn>=100):
11         print("You won")
12         return
13     play(psn)
14 position=0
15 print("Position=",position)
16 play(position)
```

○

```python
1  import random
2
3  def play(psn):
4
5      r = random.randint(1,6)
6      print("Dice rolled:",r)
7      if(psn==0):
8          if(r==1 or r==6):
9              psn=1
10     else:
11         psn=psn+r
12     print("Position=",psn)
13     if(psn>=100):
14         print("You won")
15         return
16     play(psn)
17
18
19 position=0
20 print("Position=",position)
21 play(position)
```

○

```python
1  import random
2
3  def play(psn):
4
5      r = random.randint(1,6)
6      print("Dice rolled:",r)
7      input()
8      if(psn==0):
9          if(r==1 or r==6):
10             psn=1
11     else:
12         psn=psn+r
13     print("Position=",psn)
14     if(psn>=100):
15         print("You won")
16
17     play(psn)
18
19
20 position=0
21 print("Position=",position)
22 play(position)
```

```
1  import random
2
3  def play(psn):
4
```

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```
5      print("Dice  rolled:",2)
6      if(psn==0):
7           psn=1
8      else:
9          psn=psn+2
10     print("Position=",psn)
11     if(psn>=100):
12          print("You won")
13
14     play(psn)
15  position=0
16  print("Position=",position)
17  play(position)
```

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

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

```
1  import random
2
3  def play(psn):
4
5     r = random.randint(1,6)
6     print("Dice  rolled:",r)
7     if(psn==0):
8        if(r==1  or  r==6):
9           psn=1
10    else:
11       psn=psn+r
12    print("Position=",psn)
13    if(psn>=100):
14         print("You won")
15         return
16    play(psn)
17
18
19  position=0
20  print("Position=",position)
21  play(position)
```

Question 10

1) Which of the following options correctly represent the full form of acronyms NLTK and VADER **1 point**

○ NLTK: Normal Language Toolkit, VADER: Valence Aware Dictionary and Emotional Reasoner

○ NLTK: Natural Language Toolkit, VADER: Valence Aware Dictionary and Sentiment Reasoner

○ NLTK: Normal Language Toolkit, VADER: Valence Aware Dictionary and Sentiment Reasoner

○ Natural Language Toolkit, VADER: Valence Aware Dictionary and Emotional Reasoner

No, the answer is incorrect.
Score: 0

Accepted Answers:
NLTK: Natural Language Toolkit, VADER: Valence Aware Dictionary and Sentiment Reasoner

Question 11

Which of the scenarios in the options does the following code represent?

```
import random
dict_age={}
dict_age["Arun"]=20
dict_age["Bhima"]=10
dict_age["Chirag"]=40
dict_age["Deepak"]=30

l=list(dict_age.values())

dict1={}
l_name=dict_age.keys()
i=0
prev=0
for each in dict_age:
    dict1[each]=prev+l[i]
    prev=dict1[each]
    i=i+1
print(dict1)

r=random.randint(0,sum(dict_age.values()))
print(r)
for each in dict1:
    if(r<dict1[each]):
        print("Give all money to",each)
        break
```

○ All money is given to the oldest person

○ All money is given to the youngest person

○ Money is given to a person with a probability proportional to his/her age

○ Money is given to a person with a probability inversely proportional to his/er age

No, the answer is incorrect.

No, the answer is incorrect.
Score: 0

Accepted Answers:
Money is given to a person with a probability proportional to his/her age

Question 12

4) Predict the output

```
import networkx as nx
G=nx.gnp_random_graph(100,1)
print(nx.is_connected(G))
```

○ True

○ False

○ "connected"

○ can not say

No, the answer is incorrect.
Score: 0

Accepted Answers:
True

Question 13

me)tPredict the output

```
import numpy as np
a=np.array([1,2,3])
b=np.array([[1],[2],[3]])
print(a*b)
```

ment?

○ [1,4,9]

○ [2,4,6]

ment?
   [[123]

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[246]
[369]]

○ error

No, the answer is incorrect.
Score: 0

Accepted Answers:

[[123]
[246]
[369]]

Question 14

9) What is the output of the following code ?

```
print('ab'.isalpha())
```

○ True
○ False
○ None
○ Error

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

Question 15

1) Which Python library is used for browser automation?

○ networkx
○ numpy
○ nltk
○ selenium

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

Question 16

The numbers of edges of complete graph having nodes as
1,2,3,4,5,6,7,8,9,10 is

Option A- 45 Option B- 90 Option C- 30 Option D- 60

According to me answer is 45 .reson is given below:

The total number of possible edges in a complete graph of N vertices can be given as,

Total number of edges in a complete graph of N vertices $= (n * (n-1))/2$

So, for 10 vertices we have (10*9)/2=45

Question 17

A code was given and the aim of the code was to check wheather we can use touple as key of dictionary

Ans Yes

Python 3.8.4 Shell

```
File  Edit  Shell  Debug  Options  Window  Help
Python 3.8.4 (tags/v3.8.4:dfa645a, .
tel)] on win32
Type "help", "copyright", "credits"
>>> dictionary=dict()
>>> dictionary[(1,2,3)]="apple"
>>> print(dictionary)
{(1, 2, 3): 'apple'}
```

Question 18

What is the output of the following code:

```
for i in range(5,-1,-1):
    print(i)
```

option 1-

5

4

3

2

1

0

Option 2

5 4 3 2 1 0

Option 3

Error

Option 4

None of these

Answer   5

4

3

2

1

0

```
>>> for i in range(5,-1,-1):
        print(i)

5
4
3
2
1
0
```

Question 19

Which numbers from 1 to 100 does the following code print?

```
i=0
while(i<=50):
    f=0
    for j in range(2,i):
        if(i%j==0):
            f=1
            break
    if(f==1):
        print(i)
    i=i+1
```
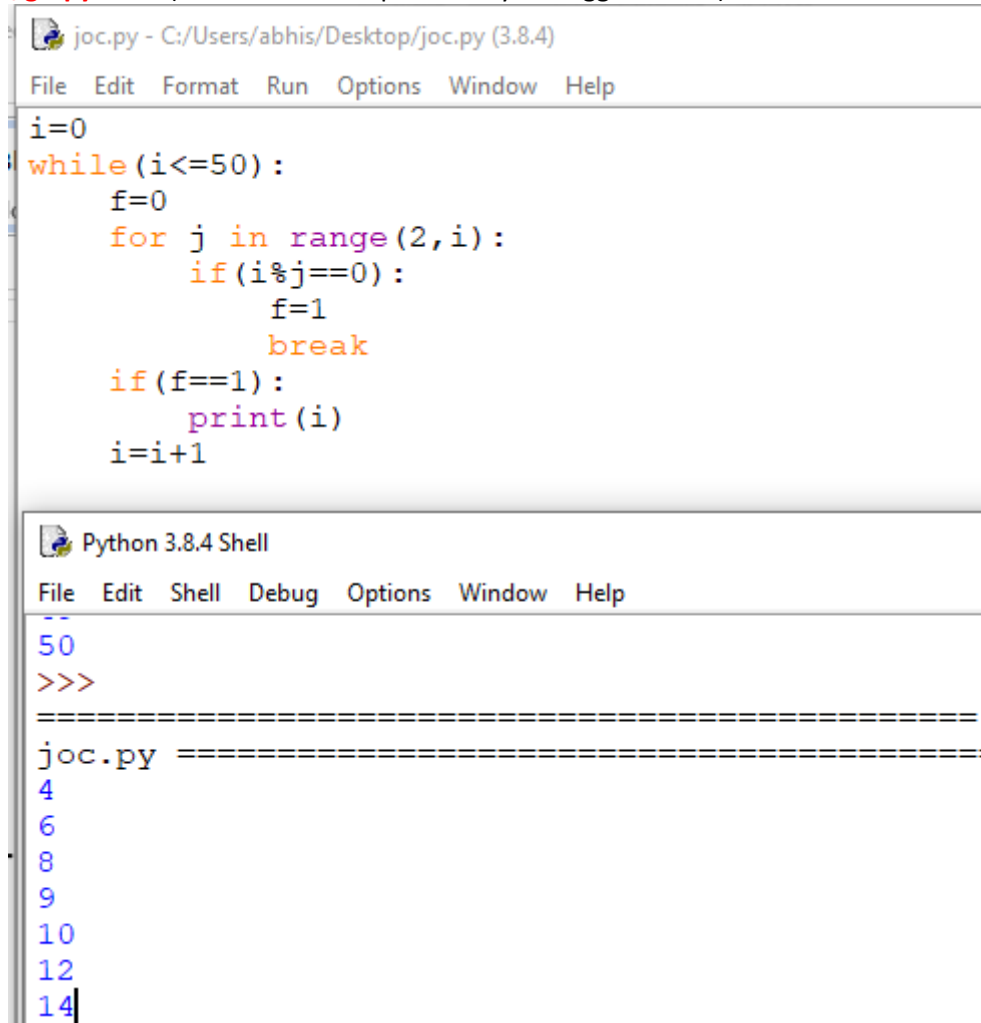
 option 1-prime numbers

option 2- composite number

option 2-perfect nmber

option 3- none of these

Answer is composite numbers

```
joc.py - C:/Users/abhis/Desktop/joc.py (3.8.4)
File  Edit  Format  Run  Options  Window  Help

i=0
while(i<=50):
    f=0
    for j in range(2,i):
        if(i%j==0):
            f=1
            break
    if(f==1):
        print(i)
    i=i+1
```

```
Python 3.8.4 Shell
File  Edit  Shell  Debug  Options  Window  Help
--
50
>>>
===========================================
joc.py ====================================
4
6
8
9
10
12
14
```

Question 20

   If 570 candidates vote for 1000 then how much vote for 20,000?

Option 1- 11400

Option 2- 1140

Option 3- 2000

Option 4- 1000

Answer is 11400

Because (570/1000)x20000=11400

Question 21

If COMPUTER is PLAMETUSOV and SCIENCE is WMAOLEPTY,then what PYTHON is?

I CAN NOT REMEMBER THESE UNDERLINED WORDS AND OPTIONS GIVEN FOR THIS QUESTION

QUESTION 22

What does the following code do?

Numpy.array([1,2,3,4])

Option 1- creates an array

Option 2- shows syntax error

Option 3- none of these

Option 4- creates a touple

ANSWER IS shows syntax error

```
>>> import numpy

>>> print(Numpy.array([1,2,3,4]))
Traceback (most recent call last):
  File "<pyshell#3>", line 1, in <module>
    print(Numpy.array([1,2,3,4]))
NameError: name 'Numpy' is not defined
>>> |
```

Question 23

There was a question like:

A function of barbelgraph was given and was asked how many nodes it will produce?

I can't remember that question code and options given for it

Question 24

The following pattern was given and was asked :

Choose the code required to produce this pattern

```
*

* *

* * *

* * * *

* * * * *
```

I can't remember the options

Question 25

What is the output of the following code?

```
import matplotlib.pyplot as plt

x=[1,2,3,4,5]

y=[1,4,9,16,25]

plt.plot(x,y,'ro')

plt.show()
```

options 1 ,2 and 3 are given below in 1 figure
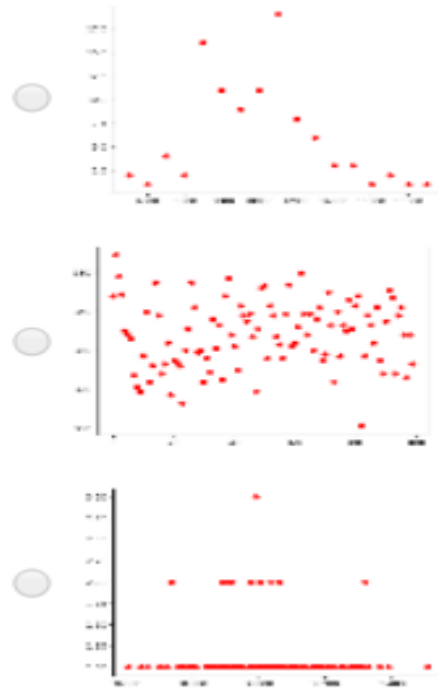
option 4
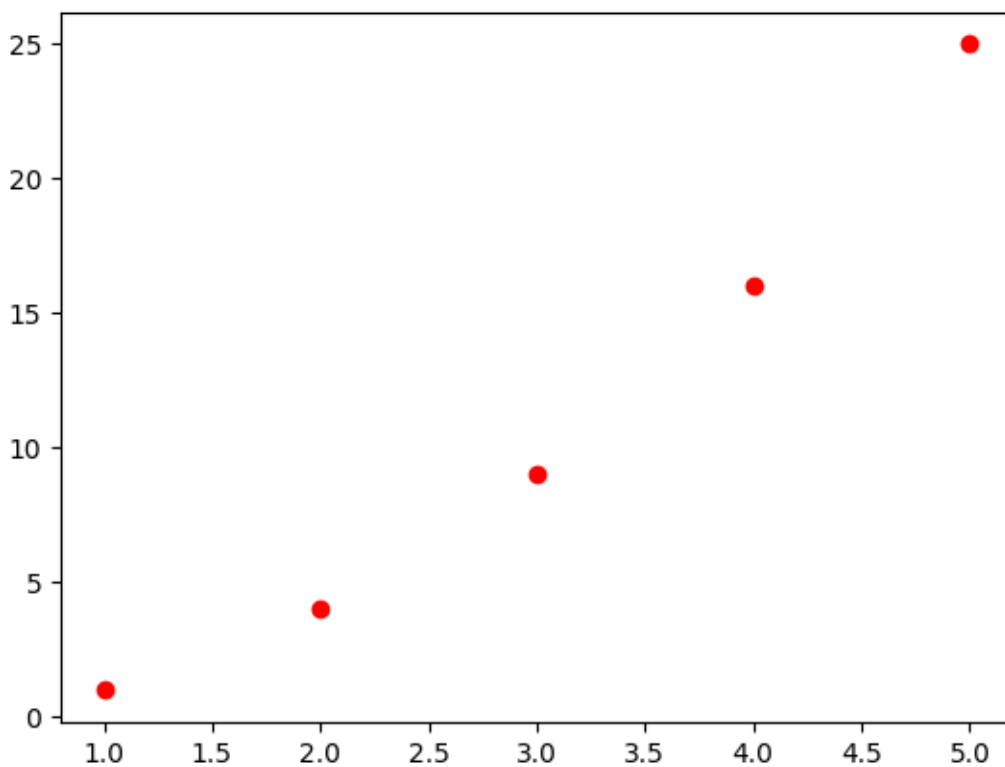
Answer is option 4 (see the below images for proof)

```
joc.py - C:/Users/abhis/Desktop/joc.py (3.8.4)

File  Edit  Format  Run  Options  Window  Help
import matplotlib.pyplot as plt
x=[1,2,3,4,5]
y=[1,4,9,16,25]
plt.plot(x,y,'ro')
plt.show()
```

Figure 1
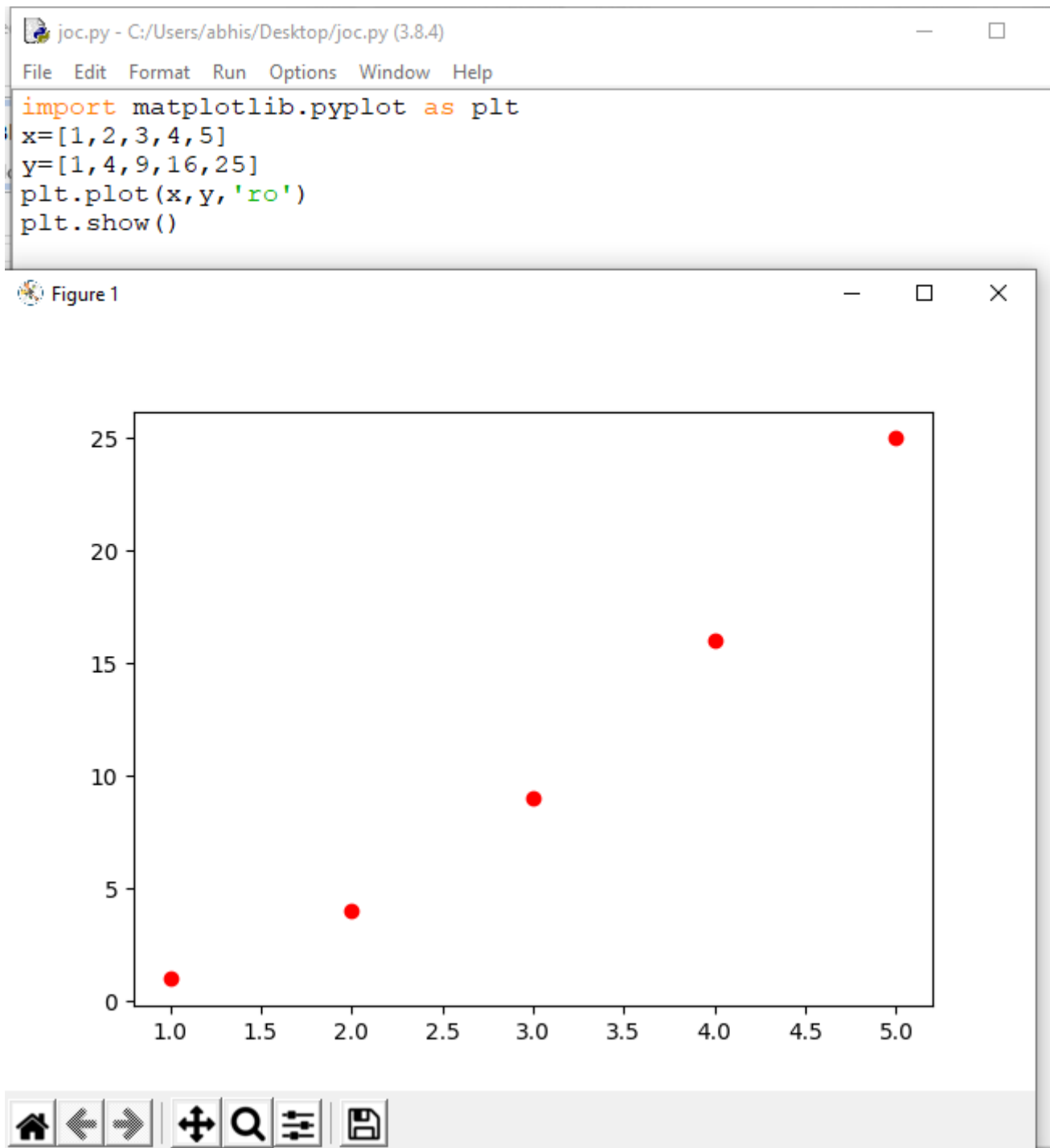
Question 26(Scratch question)

Choose the scratch code for gling a ball:

I can't remember the options.

Question 27(Scratch question)

REPEAT N

ROTATE 18 DEGREE

Above red lines was written in scratch format

Question : For what value of n in the following code ,the spirit will do a complete rotation?

Option 1-30

Option 2-20

Option 3-10

Option 4-15

ACCORDING TO ME ANSWER IS 20 (BECAUSE 360/18=20)

Question 28(Turtle question)

A turtle code was given .

Question :what is the output of the following code?
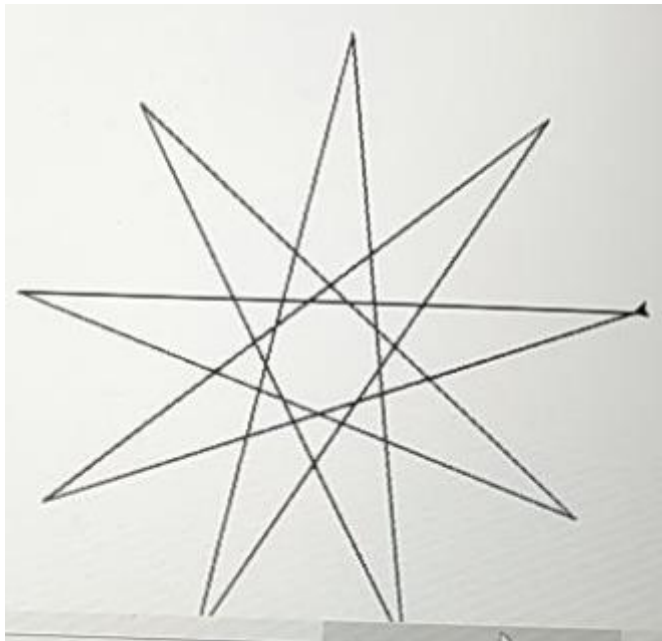
Option 1
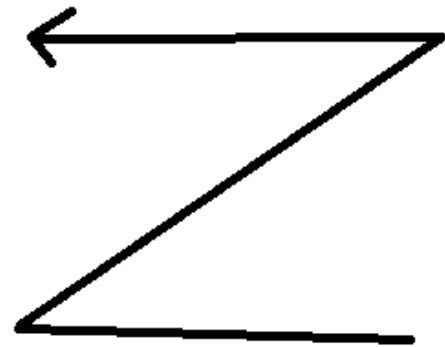
Option2
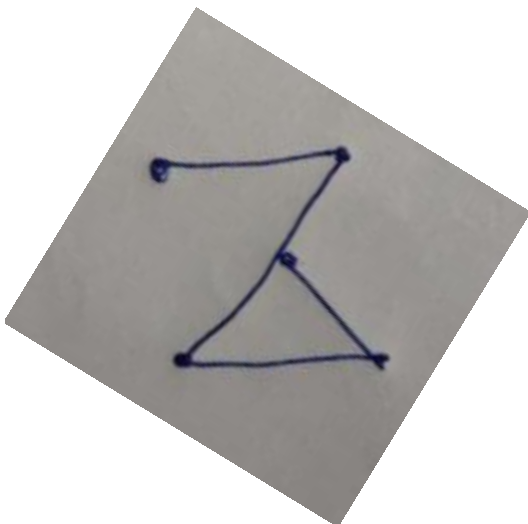
Option 3
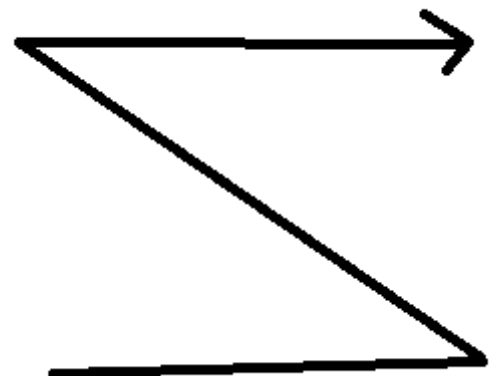
Option 4

*1st thing ,I can not remember the turtle code given for it and I have doubt
in option number 4*

Question 29

A graph for a lottery was shown in which:

Y axis was Account money

X axis was Number of turns

Question : Will you gamble?

  Option 1- Yes

  Option 2- No

  Option 3- can't tell

  Option 4- None of these

Answer According to me ,the answer is No because data is insufficient

Question 30

What does the following code returns for positive and as well negavtive values of n?

```
def num(n):

  if n>0:

      return(-n)

  else:

      return(-n*-1)
```

  Option 1- Absolute value of n

  Option 2- Negative vale of n

  Option 3- Absolute negative vale of n

  Option 4- Same number

 Answer Absolute negative value of n

 Reason Let us consider two numbers one positive and the other negative that is 8 and -8.So for 8 n=-|8|=-8 and for -8 n=-|-8|=-8

Question 31

What does the following code do?

```
j="".join(random.sample(word,random.randint(0,len(word))))
```

  Option 1- produces runtime error

  Option 2- gives correct output for any length of the word

  Option 3- may or may not gives output for any length of word

```
 Option 4- prints nothing
```

Answer may or may not gives output for any length of word

Question 32

What is the output of the following code?

```
List=["hi","we","are","the","elements","in","the","list"]

print(List[-5:-1])
```
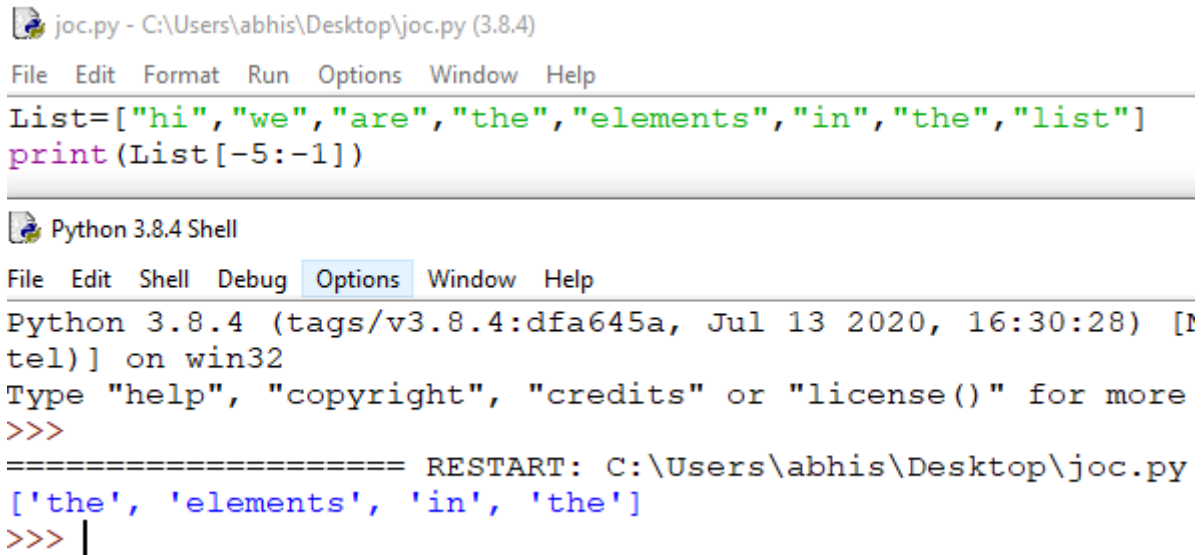
Option 1- ['the', 'elements', 'in', 'the']

Option 2- ['the', 'elements', 'in']

Option 3-[]

Option 4- ['elements', 'in', 'the']

Answer ['the', 'elements', 'in', 'the']

joc.py - C:\Users\abhis\Desktop\joc.py (3.8.4)

File Edit Format Run Options Window Help

```
List=["hi","we","are","the","elements","in","the","list"]
print(List[-5:-1])
```

Python 3.8.4 Shell

File Edit Shell Debug Options Window Help

```
Python 3.8.4 (tags/v3.8.4:dfa645a, Jul 13 2020, 16:30:28) [M
tel)] on win32
Type "help", "copyright", "credits" or "license()" for more
>>>
=================== RESTART: C:\Users\abhis\Desktop\joc.py
['the', 'elements', 'in', 'the']
>>>
```

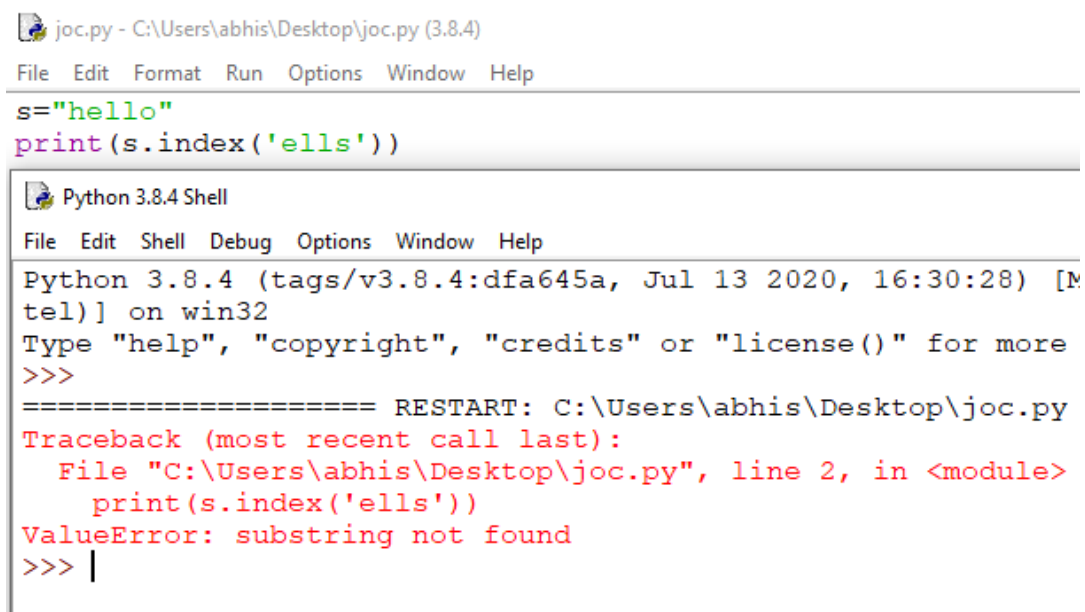# Question 33

What is the output of the following code?

s="hello"

print(s.index('ells'))

Option 1- 0

Option 2- 1

Option 3- error

Option 4- 2

Answer error

joc.py - C:\Users\abhis\Desktop\joc.py (3.8.4)

File Edit Format Run Options Window Help

```
s="hello"
print(s.index('ells'))
```

Python 3.8.4 Shell

File Edit Shell Debug Options Window Help

```
Python 3.8.4 (tags/v3.8.4:dfa645a, Jul 13 2020, 16:30:28) [M
tel)] on win32
Type "help", "copyright", "credits" or "license()" for more
>>>
=================== RESTART: C:\Users\abhis\Desktop\joc.py
Traceback (most recent call last):
  File "C:\Users\abhis\Desktop\joc.py", line 2, in <module>
    print(s.index('ells'))
ValueError: substring not found
>>>
```

Question 34

Everthing was same like below question just the string was changed

If GOLD is encoded as FNKC, then how is PLATINUM encoded?

○ NKYRGLSK

○ OKZSHMUL

○ NJYRGLSK

○ OKZSHMTL

Yes, the answer is correct.

Score: 1

Accepted Answers:

OKZSHMTL

THESE WERE THE QUESTIONS DURING FINAL CENTER EXAM OF JOY OF COMPUTING USING PYTHON ON 13ᵀᴴ DECEMBER FROM 9 AM TO 12PM(MORNING SESSION)

Credits goes to my subscribers who discussed these questions

and

my memory of this exam

THANKS