X

Unit 8 - Week 6

Course outline

How does an NPTEL online course work?

Week 0

Week 1

Week 2

Week 3

week 4

Week 5

Week 6

- Substitution Cipher -The science of secrecy (unit?unit=103&lesson=104)
- Substitution Cipher -The science of secrecy 01 (unit?unit=103&lesson=105)
- Substitution Cipher -The

Assignment 6

The due date for submitting this assignment has passed. Due on 2020-03-11, 23:59 IST.
As per our records you have not submitted this assignment.

1) Give that the statement chr(ord(alpha) + i) returns the character(alphabet or a special character) at the location i ahead than the alphabet alpha, eg, chr(ord('a')+1) returns 'b'; what is the output of the following code? ***1 point***

```
def encrypt(ltr,key):
  l=[]
  for each in list(ltr):
    l.append(chr(ord(each) + 1))
  return ("".join(l))

letter_body="ABCDEFGH"
d=encrypt(letter_body,4)
print(d)
```

- ABCDEFGH
- BCDEFGHI
- EFGHIJKL
- none of the above

No, the answer is incorrect.
Score: 0

Accepted Answers:
BCDEFGHI

2) What does the following code do? ***1 point***

science of secrecy 02 (unit?unit=103&lesson=106)
Substitution Cipher -The science of secrecy 03 (unit?unit=103&lesson=107)
Tic Tac Toe - Down the memory Lane (unit?unit=103&lesson=108)
Tic Tac Toe - Down the memory Lane 01 (unit?unit=103&lesson=109)
Tic Tac Toe - Down the memory Lane 02 (unit?unit=103&lesson=110)
Tic Tac Toe - Down the memory Lane 03 (unit?unit=103&lesson=111)
Tic Tac Toe - Down the memory Lane 04 (unit?unit=103&lesson=112)
Tic Tac Toe - Down the memory Lane 05 (unit?unit=103&lesson=113)
Recursion (unit?unit=103&lesson=114)
Recursion 01 (unit?unit=103&lesson=115)
Recursion 02 (unit?unit=103&lesson=116)
Recursion 03 (unit?unit=103&lesson=117)
Recursion 04 (unit?unit=103&lesson=118)

```
def guess(num):
  a=input("Guess a number")
  if(a==num):
    print("SUCCESS")
  else:
    guess(num)

guess(10)
```

- Keeps asking the user to guess a number until the user guesses 10
- The computer generates a random number r and keeps it. The user is repeatedly prompted to enter a number. If the user enters r, the code says success and ends, else the prompting is continued.
- Enters an infinite loop
- The computer generates a random number r and keeps it. The user is repeatedly prompted to enter a number. If the user enters r, the code says success and ends, else the computer generates a new random number r and thereafter the prompting is continued.

No, the answer is incorrect.
Score: 0
Accepted Answers:
Enters an infinite loop

3) What does the following code do? ***1 point***

```
import random
def guess(num):
  a=int(input("Guess a number from 1 to 100"))
  print(a,num)
  if(a==num):
    print("SUCCESS")
  else:
    guess(random.randint(1,100))

i=guess(random.randint(1,100))
```

- Keeps asking the user to guess a number until the user guesses 10
- The computer generates a random number r and keeps it. The user is repeatedly prompted to enter a number. If the user enters r, the code says success and ends, else the prompting is continued.
- Enters an infinite loop
- The computer generates a random number r and keeps it. The user is repeatedly prompted to enter a number. If the user enters r, the code says success and ends, else the computer generates a new random number r and thereafter the prompting is continued.

No, the answer is incorrect.
Score: 0
Accepted Answers:
The computer generates a random number r and keeps it. The user is repeatedly prompted to enter a number. If the user enters r, the code says success and ends, else the computer generates a new random number r and thereafter the prompting is continued.

4) With n as input, the code below computes ***1 point***

Recursion 05 (unit?unit=103&lesson=119)
Recursion 06 (unit?unit=103&lesson=120)
Quiz : Assignment 6 (assessment?name=276)
Programming Assignment-1: Computing Paradox (/noc20_cs35/progassignment?name=295)
Programming Assignment-2: Dictionary (/noc20_cs35/progassignment?name=296)
Programming Assignment-3: Functions (/noc20_cs35/progassignment?name=297)
Week 6 Feedback (unit?unit=103&lesson=298)
Week 7
Week 8
Week 9
Week 10
Week 11
Week 12
Text Transcripts
Download Videos
Books

```
def mul(num):
    if(num==1):
        return(-1)
    return(-1*mul(num-1))

n=int(input("Enter the value of n"))
print(mul(n))
```

- $-1 \times n$
- $-1 + n$
- $(-1)^n$
- $n^{(-1)}$

No, the answer is incorrect.
Score: 0
Accepted Answers:
$(-1)^n$

5) The following code **1 point**

```
import random
def search(l,loc,item):
    if(loc<0):
        loc=0
    if(l[loc]==item):
        print("Found",item,"at index",loc)
        return
    if(loc==len(l)-1):
        print("Element not present")
        return(0)
    else:
        return(search(l,loc+1,item))

l=[1,2,3,4,5,6,7,8,9]
search(l,-11,3)
```

- displays an error
- does not display an error but might display the error if we change the middle value passed in the function search() from 0 to some negative value.
- Can return a negative value in some cases when we change the values passed to the function search()
- Scans the list from first to the last element and displays the index of the value passed in the last number in the function search().

No, the answer is incorrect.
Score: 0
Accepted Answers:
Scans the list from first to the last element and displays the index of the value passed in the last number in the function search().

6) The following code represents **1 point**

```
import random
def search(l,loc,item):
    if(loc<0):
        loc=0
    if(l[loc]==item):
        print("Found",item,"at index",loc)
        return
    if(loc==len(l)-1):
        print("Element not present")
        return(0)
    else:
        return(search(l,loc+1,item))

l=[1,2,3,4,5,6,7,8,9]
search(l,-11,3)
```

- recursive algorithm for linear search an element in a list
- recursive algorithm for binary search an element in a list
- non-recursive algorithm for linear search an element in a list
- none of the above

No, the answer is incorrect.
Score: 0

Accepted Answers:
recursive algorithm for linear search an element in a list

7) What is the output of print(int(3.79)+int(2.1))? ***1 point***

- 6
- 5
- 7
- 4

No, the answer is incorrect.
Score: 0

Accepted Answers:
5

8) The following code to its best, represents a scenario ***1 point***

```
def func(i):
    print(i)
    if(i==0):
        print("OVER")
    else:
        func(i/2)
```

- A cake getting eaten by half of its current amount every time
- A student attempting alternate questions, starting from a given question
- Viruses doubling inside a body and killing the person once their population becomes 128 or more.
- Metro train serving 128 stations to and fro

No, the answer is incorrect.
Score: 0

Accepted Answers:
A cake getting eaten by half of its current amount every time

9) The following code to its best, represents a scenario **1 point**

```
def func(i):
    print(i)
    if(i>128):
        print("OVER")
    else:
        func(2*i)
```

- A cake getting eaten by half of its current amount every time
- A student attempting alternate questions, starting from a given question
- Viruses doubling inside a body and killing the person once their population becomes 128 or more.
- Metro train serving 128 stations to and fro

No, the answer is incorrect.
Score: 0

Accepted Answers:
Viruses doubling inside a body and killing the person once their population becomes 128 or more.

10) The following code to its best, represents a scenario **1 point**

```
def func(i,f):
    print(i)
    if(i==0):
        f=1
        func(i+1,f)
    if(i==128):
        f=-1
        func(i-1,f)
    if(f==1):
        func(i+1,f)
    if(f==-1):
        func(i-1,f)
```

- A cake getting eaten by half of its current amount every time
- A student attempting alternate questions, starting from a given question
- Viruses doubling inside a body and killing the person once their population becomes 128 or more.
- Metro train serving 128 stations to and fro

No, the answer is incorrect.
Score: 0

Accepted Answers:
Metro train serving 128 stations to and fro