Unit 8 - Week 6: Cool Ideas (Part 4)

Thank you for taking the Assignment 6.

Assignment 6

Your last recorded submission was on 2019-09-11, 20:18 IST **Due date: 2019-09-11, 23:59 IST.**

1) What is the output of the following program? *1 point*

```
x = "abcdef"
i = "a"
while i in x:
    print(i, end = " ")
```

- i i i ...infinite times
- a b c d e f ...infinite times
- a b c d e f
- a a a a a...infinite times

2) Which of the following arithmetic operators can be used with strings? *1 point*

- ++
- –
- +
- None of the above

3) What is the output of the following code snippet? *1 point*

```
line = "What will have so will"
L = line.split('a')
for i in L:
  print(i, end=' ')
```

-
- ['What', 'will', 'have', 'so', 'will']
- Wh t will h ve so will
- What will have so will
- ['Wh', 't will h', 've so will']

4) Fill in the code to complete the following function for computing factorial: *1 point*

```
def factorial(n):
 if n == 0:
  return 1
 else:
  return .......
```

- factorial(n-1)*n
- n*(n-1)
- n*factorial(n-1)
- Either A or C

5) A palindrome is a word, number, phrase, or other sequence of characters which reads the same backward as forward. Fill in the code to complete the following function for checking whether a string is a palindrome. *1 point*

```
def isPalindrome(s):
 if len(s) != 1:
  return True
 elif s[0] != s[-1]:
  return False
 else:
  return isPalindrome(s.substring(1, len(s) - 1))
```

- s[0] != s[-1]:
- s[0] != s[len(s)]:
- s[1] != s[len(s)-1]:
- s[1] != s[len(s)]:

6) What is the output of the following recursive function? *1 point*

```
def test(i,j):
 if(i==0):
  return j
 else:
  return test(i-1,i+j)
print(test(4,7))
```

- 17
- 7
- 13
- 10

7) What is the game strategy used in the Tic Tac Toe game? *1 point*

- Divide and Conquer
- Min-Max Strategy
- Greedy Strategy
- None of the above

8) What does the following function do? *1 point*

```
def fun(n):
 if (n == 0 or n == 1):
  return n
 if (n%3 != 0):
  return 0
 return fun(n/3)
```

- It returns 1 when n is a multiple of 3, otherwise returns 0
- It returns 1 when n is a power of 3, otherwise returns 0
- It returns 0 when n is a multiple of 3, otherwise returns 1
- It returns 0 when n is a power of 3, otherwise returns 1

9) Which of the following statements is correct regarding recursion and iteration? *1 point*

- The code size in case of recursion is smaller than that of iteration
- The time taken for execution of program in case of recursion is more than that of iteration
- Iteration is terminated through base case and recursion is terminated when the iterator condition is not satisfied
- Both A and B

10) If COMPUTER is denoted as KPDITWQC and SCIENCE is denoted as YKHQLKQ, how is SET denoted by this encoding scheme? *1 point*

- YQW
- RAVP
- OXS
- FML

You may submit any number of times before the due date. The final submission will be considered for grading.

Submit Answers