

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -2 EXAMINATION- 2023

B. Tech-III Semester (CSE)

COURSE CODE(CREDITS): 18B11CI314 (3)

MAX. MARKS: 25

COURSE NAME: Python Programming Essentials

COURSE INSTRUCTORS: Dr. Naveen Jaglan, Dr. Emjee Puthooran, Dr. Nishant Jain, Mr. Aayush Sharma

MAX. TIME: 1 Hour 30 Min

Note: (a) All questions are compulsory.

(b) Marks are indicated against each question in square brackets.

(c) The candidate is allowed to make Suitable numeric assumptions wherever required for solving problems

1. Write a program to know the cursor position (file pointer) and print the text according to below-given specifications:
 - (a) Print the initial position
 - (b) Move the cursor to 4th position
 - (c) Display next 5 character
 - (d) Move the cursor to the next 10 characters
 - (e) Print the current cursor position
 - (f) Print next 10 characters from the current cursor position [CO-4; 3 marks]
2. Write a Python program to remove all elements from a given list present in another list using lambda.
Original lists: list1: [1, 2, 3, 4, 5, 6, 7, 8, 9, 10] list2: [2, 4, 6, 8]
Remove all elements from list1 present in list2: [1, 3, 5, 7, 9, 10] [CO-3; 2 marks]
3. With the help of a suitable program explain the Class methods, Static methods and Instance methods. [CO-5; 4 marks]
4. Write a python program to count the number of lines, words and characters in a text file. [CO-4; 3 marks]
5. With the help of a python program show that bisection search convergence is better than approximate solutions algorithm. [CO-2; 4 marks]
6. Given a string as your input, delete any recurring character and return the new string.
Sample Input: mississippi
Sample Output: misp [CO-1; 3 marks]
7. Find the outputs of following python programmes: [CO-5; 6 marks]

(a)

```
class Demo:
    def __init__(self):
        pass

    def test(self):
        print(__name__)

obj = Demo()
obj.test()
```

(b)

```
class stud:
    def __init__(self, roll_no, grade):
        self.roll_no = roll_no
        self.grade = grade
    def display(self):
        print("Roll no: ", self.roll_no, ", Grade: ", self.grade)
stud1 = stud(34, 'S')
stud1.age=7
print(hasattr(stud1, 'age'))
```

(c)

```
def add(c, k):
    c.test=c.test+1
    k=k+1
class A:
    def __init__(self):
        self.test = 0
def main():
    Count=A()
    k=0
    for i in range(0,25):
        add(Count,k)
    print("Count.test=", Count.test)
    print("k =", k)
main()
```

(d)

```
>>> class demo():
    def __repr__(self):
        return '__repr__ built-in function called'
    def __str__(self):
        return '__str__ built-in function called'
>>> s=demo()
>>> print(s)
```

(e)

```
#mod1
def change(a):
    b=[x*2 for x in a]
    print(b)
#mod2
def change(a):
    b=[x*x for x in a]
    print(b)
from mod1 import change
from mod2 import change
#main
s=[1,2,3]
change(s)
```

(f)

```
from math import factorial
print(math.factorial(5))
```