

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -1 EXAMINATION- 2024

M.Tech-I Semester (ECE)

COURSE CODE(CREDITS): 21M11EC113

MAX. MARKS: 15

COURSE NAME: Object Oriented Programming

COURSE INSTRUCTORS: Dr. Naveen Jaglan

MAX. TIME: 1 Hour

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. You have x no. of 5-rupee coins and y no. of 1-rupee coins. You want to purchase an item for amount z . The shopkeeper wants you to give him exact change. You want to pay using a minimum number of coins. How many 5-rupee coins and 1-rupee coins will you use? If exact change is not possible then display -1.

Sample Input			Expected Output	
Available Rs. 1 coin	Available Rs. 5 coins	Amount to be made	Rs. 1 coin needed	Rs. 5 notes needed
2	4	21	1	4
11	2	11	1	2
3	3	19	-1	

[CO-1; 3 Marks]

2. Write a python program to compute the sum of all the multiples of 3 or 5 below 500.

[CO-1; 3 Marks]

3. Write a python program to find the common elements in two lists.

[CO-2; 3 Mark]

4. Write a python program to print the first Seven Fibonacci Sequence numbers.

Note: A Fibonacci Sequence is the integer sequence of 1,1,2,3,5,8,13....

[CO-1,2; 3 Marks]

5. Find the outputs of following Python programmes:

[CO-1,2; 3 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(29, '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)

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

(f)

```
class student:
    'Base class for all students'
    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)
print(student.__doc__)
```