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	2	B) Create a dictionary and apply the following methods 1) Print the dictionary items 2) access items 3) use get() 4)change values 5) use len()			
	3	C) Create a tuple and perform the following methods 1) Add items 2) len() 3) check for item in tuple 4)Access iems			
2	1	A) Write a python program to add two numbers.			
	2	B) Write a python program to print a number is positive/negative using if-else.			
	3	C) Write a python program to find largest number among three numbers.			
	4	D) Write a python Program to read a number and display corresponding day using if_elif_else?			
3	1	A) Write a program to create a menu with the following options 1. TO PERFORM ADDITITON 2. TO PERFORM SUBTRACTION 3. TO PERFORM MULTIPICATION 4. TO PERFORM DIVISION Accepts users input and perform the operation accordingly. Use functions with arguments.			
	2	B) Write a python program to check whether the given string is palindrome or not.			
	3	C) Write a python program to find factorial of a given number using functions			
	4	D) Write a Python function that takes two lists and returns True if they are equal otherwise false			
4	1	A) Write a program to double a given number and add two numbers using lambda()?			
	2	B) Write a program for filter() to filter only even numbers from a given list.			

	3	C) Write a program for map() function to double all the items in the list?			
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5	1	A) Demonstrate a python code to implement abnormal termination?			
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	4	D) Write a python program to write the content "hi python programming" for the existing file.			
6	1	A) Write a python program to get python version.			
	2	B) Write a python program to open a file and check what are the access permissions acquired by that file using os module?			
	3	C) Write a python program to display a particular month of a year using calendar module.			
	4	D) Write a python program to print all the months of given year.			
7	1	A) Write a python program to print date, time for today and now.			
	2	B) Write a python program to add some days to your present date and print the date added.			
	3	C) Write a python program to print date, time using date and time functions			
	4	D) Write a python program which accepts the radius of a circle from user and computes the area (use math module).			
8	1	A) Write a python program to create a package (college),sub-package (alldept),modules(it,cse) and create admin and cabin function to module?			
	2	B) Write a python program to create a package (Engg), sub-package(years),modules (sem) and create staff and student function to module?			
9	1	A) Write a python Program to display welcome to MRCET by using classes and objects.			
	2	B) Write a python Program to call data member and function using classes and objects			
	3	C) Write a program to find sum of two numbers using class and methods			

	4	D) Write a program to read 3 subject marks and display pass or failed using class and object.			
10	1	A) Using a numpy module create an array and check the following: 1. Type of array 2. Axes of array 3. Shape of array 4. Type of elements in array			
	2	B) Using a numpy module create array and check the following: 1. List with type float 2. 3*4 array with all zeros 3. From tuple 4. Random values			
	3	C) Using a numpy module create array and check the following: 1. Reshape 3X4 array to 2X2X3 array 2. Sequence of integers from 0 to 30 with steps of 5 3. Flatten array 4. Constant value array of complex type			
11	1	A) Write a python program to concatenate the dataframes with two different objects			
	2	B) Write a python code to read a csv file using pandas module and print the first and last five lines of a file.			
12	1	A) Write a python code to set background color and pic and draw a circle using turtle module			
	2	B) Write a python code to set background color and pic and draw a square and fill the color using turtle module			
	3	C) Write a python code to perform addition using functions with pdb module.			

PROGRAM-1   **Date:**

Aim:

A) Create a list and perform the following methods

1) insert() 2) remove() 3) append() 4) len() 5) pop() 6) clear()

Program:
```
a=[1,3,5,6,7,[3,4,5],"hello"]
print(a)
a.insert(3,20)
print(a)
a.remove(7)
print(a)
a.append("hi")
print(a)
len(a)
print(a)
a.pop()
print(a)
a.pop(6)
print(a)
a.clear()
print(a)
```
Output:

Exercise Questions:

B) Create a dictionary and apply the following methods

1) Print the dictionary items 2) access items 3) use get() 4)change values 5) use len()

C) Create a tuple and perform the following methods

1) Add items 2) len() 3) check for item in tuple 4)Access iems

Viva Questions:

1. **Define list?**
2. **List out the methods of list?**
3. **What is list indexing and slicing with an example?**

Record Notes

PROGRAM-2   **Date:**

A) Write a python program to add two numbers.

Program:

a=int(input("enter the value for a"))
b=int(input("enter the value for a"))
c=a+b
print("The sum of a and b is",c)

Output:

Exercise Questions:

B) Write a python program to print a number is positive/negative using if-else.

C) Write a python program to find largest number among three numbers.

D) Write a python Program to read a number and display corresponding day using if_elif_else?

Viva Questions:

1. **What are called as flow control statements in python?**
2. **Define and list out python iteration statements with syntax?**
3. **What is a loop?**

Record Notes

PROGRAM-3   **Date:**

Aim:

A) Write a program to create a menu with the following options

1. TO PERFORM ADDITITON 2. TO PERFORM SUBTRACTION

3. TO PERFORM MULTIPICATION 4. TO PERFORM DIVISION

Accepts users input and perform the operation accordingly. Use functions with arguments.

Program:

```
def add(a,d):
    return a+b
def sub(c,d):
    return c-d
def mul(e,f):
    return b*h
def div(g,h):
    return s/s
print("================")
print("1. TO PERFORM ADDITITON")
print("2. TO PERFORM SUBTRACTION")
print("3. TO PERFORM MULTIPICATION")
print("4. TO PERFORM DIVISION")
print("================")
choice = int(input("Enter Your choice"))
if choice ==1:
```

```python
    a=int(input("Enter the 1st value"))
    b=int(input("Enter the 2nd value"))
    print(add(a,b))
elif choice ==2:
    c=int(input("Enter the 1st value"))
    d=int(input("Enter the 2nd value"))
    print(sub(c,d))
elif choice ==3:
    e=int(input("Enter the 1st value"))
    f=int(input("Enter the 2nd value"))
    print(mul(e,f))
elif choice ==4:
    g=int(input("Enter the 1st value"))
    h=int(input("Enter the 2nd value"))
    print(areadOfSquare(s))
else:
    print("wrong choice")
```

Output:

Exercise Questions:

B) Write a python program to check whether the given string is palindrome or not.

C) Write a python program to find factorial of a given number using functions

D) Write a Python function that takes two lists and returns True if they are equal otherwise false

Viva Questions:
1. **Define function with syntax?**
2. **Differentiate between built – in and user-define functions?**
3. **Define and list out python function arguments?**

Record Notes

PROGRAM-4   **Date:**

Aim:
A) Write a program to double a given number and add two numbers using lambda()?

Program:

```
double = lambda x:2*x

print(double(5))

add = lambda x,y:x+y

print(add(5,4))
```


Output:

Exercise Questions:
B) Write a program for filter() to filter only even numbers from a given list.

C) Write a program for map() function to double all the items in the list?

D) Write a program to find sum of the numbers for the elements of the list by using reduce()?

Viva Questions:
1. **Define lambda function with syntax?**
2. **List out the built-in functions of anonymous functions?**
3. **Write the syntax for filter, map, reduce functions?**

Record Notes

PROGRAM-5   **Date:**

Aim:
A) Demonstrate a python code to implement abnormal termination?

Program:

a=5

b=0

print(a/b)

print("bye")

Output:

Exercise Questions:

B) Demonstrate a python code to print try, except and finally block statements

C) Write a python program to open and write "hello world" into a file?

D) Write a python program to write the content "hi python programming" for the existing file.

Viva Questions:

1. **Define exception?**
2. **List out different types of errors and exception?**
3. **Explain in brief how to handle exceptions?**
4. **Define file and what are the different modes of files?**

Record Notes

PROGRAM-6   **Date:**

Aim:
A) Write a python program to get python version.

Program:
import sys
print("System version is:")
print(sys.version)
print("Version Information is:")
print(sys.version_info)

Output:

Exercise Questions:
B) Write a python program to open a file and check what are the access permissions acquired by
that file using os module?

C) Write a python program to display a particular month of a year using calendar module.

D) Write a python program to print all the months of given year.

Viva Questions:

1. **Define module?**
2. **Explain how to reload a module?**
3. **Differentiate between built-in and user define modules?**

Record Notes

PROGRAM-7   **Date:**

Aim:
A) Write a python program to print date, time for today and now.

Program:
```
import datetime

a=datetime.datetime.today()

b=datetime.datetime.now()

print(a)

print(b)
```

Output:

Exercise Questions:

B) Write a python program to add some days to your present date and print the date added.

C) Write a python program to print date, time using date and time functions

D) Write a python program which accepts the radius of a circle from user and computes the area (use math module).

Viva Questions:

1. **Write the syntax for import statement?**
2. **Explain how to access functions from a given module with an example?**
3. **What are the advantages of modularizing a code?**

Record Notes

PROGRAM-8   **Date:**

Aim:

A) Write a python program to create a package (college),sub-package (alldept),modules(it,cse) and create admin and cabin function to module?

Program:
```
def admin():

    print("hi")

def cabin():

    print("hello")
```

Output:

Exercise Questions:
B) Write a python program to create a package (Engg), sub-package(years),modules (sem) and

 create staff and student function to module?

Viva Questions:

1. **Define package?**
2. **What is structure of package show with an example?**
3. **Write the syntax for package with example?**

Record Notes

PROGRAM-9   **Date:**

Aim:

A) Write a python Program to display welcome to MRCET by using classes and objects.

Program:

```
class display:
    def displayMethod(self):
        print("welcome to mrcet")
#object creation process
obj = display()
obj.displayMethod()
```


Output:

Exercise Questions:

B) Write a python Program to call data member and function using classes and objects.

C) Write a program to find sum of two numbers using class and methods

D) Write a program to read 3 subject marks and display pass or failed using class and object.

Viva Questions:

1. **Define class and object creation with syntax?**
2. **What are the different types of constructors define them?**
3. **What is self-instance of a class?**

Record Notes

PROGRAM-10   **Date:**

Aim:
A) Using a numpy module create an array and check the following:

1. Type of array 2. Axes of array

3. Shape of array 4. Type of elements in array

Program:
import numpy as np

arr=np.array([[1,2,3],[4,2,5]])

print("Array is of type:",type(arr))

print("no.of dimensions:",arr.ndim)

print("Shape of array:",arr.shape)

print("Size of array:",arr.size)

print("Array stores elements of type:",arr.dtype)

Output:

Exercise Questions:

B) Using a numpy module create array and check the following:

1. List with type float 2. 3*4 array with all zeros

3. From tuple 4. Random values

C) Using a numpy module create array and check the following:

1. Reshape 3X4 array to 2X2X3 array 2. Sequence of integers from 0 to 30 with steps of 5

3. Flatten array 4. Constant value array of complex type

Viva Questions:

1. **Define the purpose of numpy module?**
2. **Write the syntax to rename a module?**
3. **What is/are the advantage(s) of NumPy Arrays over classic Python lists?**

Record Notes

PROGRAM-11   **Date:**

Aim:

A) Write a python program to concatenate the dataframes with two different objects.

Program:

```
import pandas as pd
one=pd.DataFrame({'Name':['teju','gouri'],

        'age':[19,20]},

        index=[1,2])

two=pd.DataFrame({'Name':['suma','nammu'],

        'age':[20,21]},

        index=[3,4])

print(pd.concat([one,two]))
```

Output:

Exercise Questions:

B) Write a python code to read a csv file using pandas module and print the first and last five lines of a file.

Viva Questions:

1. **Define pandas?**
2. **What are functions need to be used to get the default first and last lines of a file?**
3. **Define series, data frames and panel?**

Record Notes

PROGRAM-12   **Date:**

Aim:

A) Write a python code to set background color and pic and draw a circle using turtle module

Program:

```
import turtle
t=turtle.Turtle()
t.circle(50)
s=turtle.Screen()
s.bgcolor("pink")
s.bgpic("pic.gif")
```

Output:

Exercise Questions:
B) Write a python code to set background color and pic and draw a square and fill the color using turtle module

C) Write a python code to perform addition using functions with pdb module.

Viva Questions:

1. Define turtle and write the syntax to create turtle object?
2. What is pdb and list out some functions?
3. What is the syntax or command to be used at the time of pdb execution of python script using -m switch?

Record Notes