

SUB:- Python Practical

SUB CODE:-

ROLL NO:- 39

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Q2]. Programs for understanding the data types ,control flow statements ,blocks and loops

```
num = int(input("enter integer value"))

print(num)

print(type(num))

for x in range(1,num):

    if(x%2==0):

        print(x ,"=Even number")

    else:

        print(x , "=odd")

name = input("enter your name:")

print(name)

print(type(name))
```

OUTPUT:-

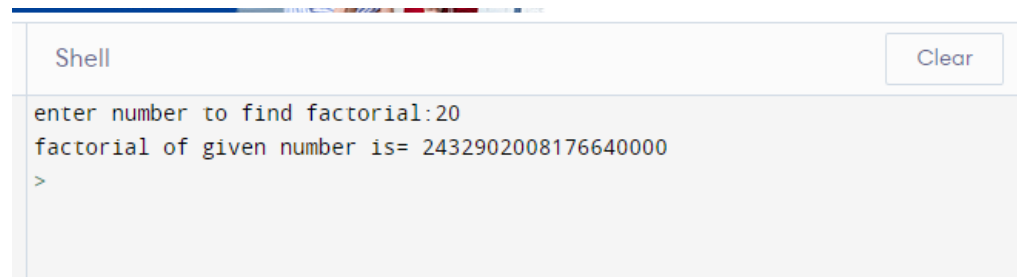
```
Shell Clear
enter integer value3
3
<class 'int'>
1 =odd
2 =Even number
enter your name:prajval
prajval
<class 'str'>
> |
```

Q3]. Programs for understanding functions, use of built in function ,user defined function.

```
def factorial():  
    num = int(input("enter number to find factorial:"))  
    fact=1  
    for i in range(1,num+1):  
        fact=fact * i  
    print("factorial of given number is=",fact)  
factorial()
```

#In above program factorial is user defined funtion and print funtion is in built function

OUTPUT:

A screenshot of a terminal window titled "Shell". The terminal shows the input "20" for the prompt "enter number to find factorial:". The output is "factorial of given number is= 2432902008176640000". The prompt ">" is visible on the next line. A "Clear" button is located in the top right corner of the terminal window.

```
Shell Clear  
enter number to find factorial:20  
factorial of given number is= 2432902008176640000  
>
```

Q4]. Programs to use extisting modules,packages and creating modules , packages.

```

def add():

    num1 = int(input("enter num1="))

    num2 = int(input("enter num1="))

    sum = num1 + num2

    print("Addition of two number is=", sum)

def mult():

    num1 = int(input("enter num1="))

    num2 = int(input("enter num1="))

    sum = num1 * num2

    print("Multiplication of two number is=", sum)

program2nd:

import Q4

import math

Q4.add()

Q4.mult()

print("value of pi=",math.pi)

```

OUTPUT:



```

C:\Windows\System32\cmd.exe
C:\Users\JP3\COMPUTERS\Desktop>python mq4.py
enter num1=4
enter num1=5
Addition of two number is= 9
enter num1=2
enter num1=3
Multiplication of two number is= 6
value of pi= 3.141592653589793
C:\Users\JP3\COMPUTERS\Desktop>

```

Q5]. Programs for implementation of all object oriented concepts like class ,methods ,inheritance ,polymorphism etc.

```

class India():
    def capital(self):
        print("Mumbai is the economic capital of India.")

    def language(self):
        print("Marathi is the most widely spoken language of Maharashtra.")

    def type(self):
        print("Mumbai is a developing City.")

class USA():
    def capital(self):
        print("Washington, D.C. is the capital of USA.")

    def language(self):
        print("English is the primary language of USA.")

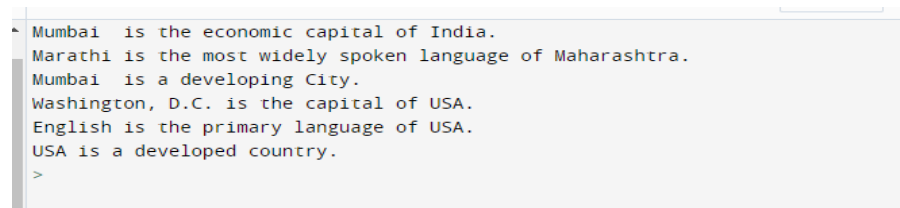
    def type(self):
        print("USA is a developed country.")

obj_ind = India()
obj_usa = USA()

for country in (obj_ind, obj_usa):
    country.capital()
    country.language()
    country.type()

```

OUTPUT:-



```

Mumbai is the economic capital of India.
Marathi is the most widely spoken language of Maharashtra.
Mumbai is a developing City.
Washington, D.C. is the capital of USA.
English is the primary language of USA.
USA is a developed country.
>

```

Q6]. Programs for parsing of data ,validations like passwords ,email url etc.

```
import re
```

```

regex = '^[a-z0-9]+[\._]?[a-z0-9]+[@]\w+[.]\w{2,3}$'

def check(email):

    if(re.search(regex,email)):

        print("Valid Email")

    else:

        print("Invalid Email")

if __name__ == '__main__':

    email = "prajval@009.org"

    check(email)

    email = "prajwalbhale007@gmail.com"

    check(email)

    email = "abcd@gmail.com"

    check(email)

```

OUTPUT:



```

C:\Windows\System32\cmd.exe
C:\Users\PJ\COMPUTERS\Desktop>python mq4.py
Valid Email
Invalid Email
Valid Email
C:\Users\PJ\COMPUTERS\Desktop>

```

Q 7 - A]. Programs for pattern finding should be covered.

```

print("Print equilateral triangle Pyramid using asterisk symbol ")

```

printing full Triangle pyramid using stars

size = 7

m = (2 * size) - 2

for i in range(0, size):

 for j in range(0, m):

 print(end=" ")

 # decrementing m after each loop

 m = m - 1

 for j in range(0, i + 1):

 print("* ", end=' ')

 print(" ")

OUTPUT:

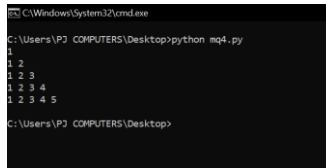


Q7]. B

rows = 5

```
for i in range(1, rows + 1):  
    for j in range(1, i + 1):  
        print(j, end=' ')  
    print("")
```

OUTPUT:



```
C:\Windows\System32\cmd.exe  
C:\Users\PJ_COMPUTERS\Desktop>python mq4.py  
1  
1 2  
1 2 3  
1 2 3 4  
C:\Users\PJ_COMPUTERS\Desktop>
```

Q7]. C

```
ascii_number = 65
```



```
rows = 7

for i in range(0, rows):

    for j in range(0, i + 1):

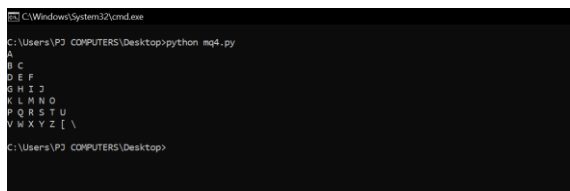
        character = chr(ascii_number)

    print(character, end=' ')

    ascii_number += 1

print(" ")
```

OUTPUT:



```
C:\Windows\System32\cmd.exe
C:\Users\PJ\COMPUTERS\Desktop>python mq4.py
A
A B
A B C
A B C D
A B C D E
A B C D E F
A B C D E F G
A B C D E F G 
C:\Users\PJ\COMPUTERS\Desktop>
```

Q8].Programs covering all the aspects of exception handling , user defined exception, multithreading should be coverd.

```
import threading
```

```
import sys

class MyThread(threading.Thread):

    def someFunction(self):

        print("Hello World")

    def run(self):

        self.someFunction()

    def join(self):

        threading.Thread.join(self)

def main():

    t = MyThread()

    t.start()

    t.join()

if __name__ == '__main__':

    main()
```

OUTPUT:

