**Acropolis Institute of Technology and Research**

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**Branch: C.S.I.T (CI)**

**Subject : Python(Lab)**

**1. Write a python program to display a user entered name followed by Good Afternoon**

**using input() function.**

a = input("Enter your name")

print("Good Afternoon",a)

**2. &quot;Write a program to input marks of five subjects Physics, Chemistry, Biology, Mathematics and**

**Computer. Calculate percentage and grade according to following:**

**Percentage &gt;= 90% : Grade A**

**Percentage &gt;= 80% : Grade B**

**Percentage &gt;= 70% : Grade C**

**Percentage &gt;= 60% : Grade D**

**Percentage &gt;= 40% : Grade E**

**Percentage &lt; 40% : Grade F&quot;**

phy = float(input())

chem = float(input())

bio = float(input())

maths = float(input())

comp = float(input())

per = ((phy+chem+bio+maths+comp) / 500)\*100

if per >= 90:

print("Percentage :",per,"| Grade : A")

elif per >= 80:

print("Percentage :",per,"| Grade : B")

elif per >= 70:

print("Percentage :",per,"| Grade : C")

elif per >= 60:

print("Percentage :",per,"| Grade : D")

elif per >= 40:

print("Percentage :",per,"| Grade : E")

elif per < 40:

print("Percentage :",per,"| Grade : F")

**3. Replace double spaces with single spaces in previous program**

def remove(string):

return string.replace(" ", "")

string = "a c r o p o l i s"

print(remove(string))

**4. Write a program to store seven fruits in a list entered by the user**

fruits=['apples','oranges','bananas','mangoes','grapes','strawberry','chiku']

print(fruits[1:4])

**5. Write a program to enter marks of 6 students and display them in sorted order.**

print("Input six integers:")

nums = list(map(int, input().split()))

nums.sort()

print("After sorting the said ntegers:")

print(\*nums)

**6. Write a program to count the number of zeroes in following tuple.**

**a = (7,0,8,0,0,9)**

a = (7,0,8,0,0,4)

anew = a.count(0)

print("The number of zeroes are ",anew)

**7. Given two integer numbers return their sum. If the sum is greater than 100, then return their**

**product.**

a = 45

b = 10

c = a+b

def pro():

if c > 100:

return a\*b

else:

return c

print(pro())

**8. Find the sum of the series 3 +33 + 333 + 3333 + .. n terms**

n=int(input("Enter the range of number:"))

sum=0

p=3

for i in range(1,n+1):

sum += p

p=(p\*10)+3

print("The sum of the series = ",sum)

**9. What will be the length of the following set**

**S =set()**

**S.add(20)**

**S.add(20.0)**

**S.add(“20”)**

**Length of S after operation?**

S =set()

S.add(20)

S.add(20.0)

S.add("20")

print(len(S))

**10. Can you change the values inside a list which is contained in set S?**

**S = {8,7,12,”Simarjeet”,[1,2]}**

No

**11. Write a Python program to change a given string to a new string where the second and last chars**

**have been exchanged.**

def change\_sring(str1):

return str1[-1:] + str1[2:-1] + str1[:1]

print(change\_sring('abcd'))

print(change\_sring('12345'))

**12. Write a program to check whether a username consists of less than 10 characters or**

**not.**

username =input("Enter your name ")

if len(username)<10:

print("less than 10 characters" )

else:

print("not less than 10 characters ")

**13. Write a program to find out whether a given post is talking about ”Simarjeet” or not.**

post = input("Enter a post: ")

if 'Simarjeet' in post.lower():

print("Yes! the post contains the name Simarjeet.")

else:

print("No! the post does not contain the name Simarjeet ")

**14. Write a program to greet all the person names stored in a list L1 and which starts with**

**‘S’. (hint: use startswith(“S”) method)**

**L1 = [“Simarjeet”, “Sohan”, “Sachin”, “Rahul”]**

Name = raw\_input('What is your Name? ')

if Name == startswith(“S”):

print ("Hello + Name)

**15. Write a program to check whether a number is prime or not.**

num = int(input("Enter a number: "))

flag = False

if num > 1:

for i in range(2, num):

if (num % i) == 0:

flag = True

break

if flag:

print(num, "is not a prime number")

else:

print(num, "is a prime number")

**16. Find the greatest of 3 numbers using function**

def maximum(a, b, c):

if (a >= b) and (a >= c):

largest = a

elif (b >= a) and (b >= c):

largest = b

else:

largest = c

return largest

print(maximum(a, b, c))

**17. How do you prevent a python function to print a new line at the end.(use , end = “ ” in**

**print after hello)**

print("Hello World ", end=" ")

print("Welcome to Python Tutorials")

**18. Write a function to calculate the sum of first n natural numbers.**

def findSum(n) :

sum = 0

x = 1

while x <=n :

sum = sum + x

x = x + 1

return sum

n = 5

print findSum(n)

**19. Program to reverse a given Number. ex: n=123 Reversed no is 321**

num = input("Enter an integer ")

reversed\_num = 0

while num != 0:

digit = num % 10

reversed\_num = reversed\_num \* 10 + digit

num //= 1

print("Reversed Number: " + str(reversed\_num))

**20 Write a Python program that takes input from the user and displays that input back in upper and**

**lower cases.**

user\_input = input("What's your favourite language? ")

print("My favourite language is ", user\_input.upper())

print("My favourite language is ", user\_input.lower())

**21. Write a program to generate multiplication tables from 2 to 20.**

def table(n):

for i in range (1, 11):

# multiples from 1 to 10

print "%d \* %d = %d" % (n, i, n \* i)

for n in range(2,21)

table(n)

**22 Python program to delete an element from a list by index which is given by the user.**

def remove(list1, pos):

del list1[pos]

print(\*list1)

list1 = [10, 20, 30, 40, 50]

pos = 2

remove(list1, pos)

**23. Write a Python program to find all the values in a list are greater than a given number.**

# python program to check if all

# values in the list are greater

# than val using traversal

def check(list1, val):

# traverse in the list

for x in list1:

# compare with all the values

# with val

if val>= x:

return False

return True

# driver code

list1 =[10, 20, 30, 40, 50, 60]

val = 5

if(check(list1, val)):

print"Yes"

else:

print"No"

val = 20

if(check(list1, val)):

print"Yes"

else:

print"No"

**24. Write a program to check whether 2 files are identical or not.**

f1 = open("C:/Users/user/Documents/intro.txt", "r")

f2 = open("C:/Users/user/Desktop/intro1.txt", "r")

i = 0

for line1 in f1:

i += 1

for line2 in f2:

if line1 == line2:

print("Line ", i, ": IDENTICAL")

else:

print("Line ", i, ":")

print("\tFile 1:", line1, end='')

print("\tFile 2:", line2, end='')

break

f1.close()

f2.close()

**25. Write a program to empty all the contents of a file.**

f = open("sample.txt", "r+")

f.seek(0)

f.truncate()