W O R K S H E E T _ S E T _ 1

PYTHON_WORKSHEET

PYTHON WORKSHEEET-1

1)C

2)B

3)C

4)A

5)D

6)C

7)A

8)C

9)A,C

10)A,B

11)num=int(input())

```
factorial=1
if num<0:
    print('sorry,factorial does not exist for negative numbers')
elif num==0:
    print('the factorial of 0 is 1')
else:
    for i in range(1,num+1):
        factorial=factorial*1
```

```
    print('the factorial of',num,'is','factorial')
```

12)
```
num=int(input('enter any number:'))
if num>1:
    for i in range(2,num):
        if (num%i)==0:
            print(num,"is not a prime number")
            break
        else:
            print(num,"is a prime number")
elif num ==0 or 1:
    print(num,"is neither prime nor composite")
else:
    print(num,"is not prime number it is a composite number")
```

13)
```
string=input("enter any string")
if(string==string[::-1]):
    print("the string is palindrome")
else:
    print("the string is not a palindrome")
```

14)
```
import math
```

```
a=float(input("enter base:"))
b=float(input("enter height:"))
c=math.sqrt(a**2 + b**2)
print("hypotenuse=",c)
```

```
15)def char_frequency(str1):
    dict={}
    for n in str1:
        keys=dict.keys()
        if n in keys:
            dict[n]+=1
        else:
            dict[n]=1
    return dict
print(char_frequency('internship'))
```

STATISTICS_WORKSHEET

statistics worksheet-1

1)a-true

2)a

3)b

4)d

5)c

6)b

7)b

8)a

9)c

M A C H I N E _ L E A R N I N G

machine learning worksheet-1

1)A

2)A

3)B

4)B

5)C

6)B

7)B

8)D

9)A

10)A

11)B

12)A,B

13)Regularization is one of the most important concepts of machine learning. It is a technique to prevent the model from overfitting by adding extra information to it. Sometimes the machine learning model performs well with the training data but does not perform well with the test data.

14)a)ridge regression

b) Least Absolute Shrinkage and Selection Operator (LASSO, L1 Regularization)

c)elastic net

d)least angle regression(LARS)

15)Linear regression most often uses mean-square error (MSE) to calculate the error of the model. MSE is calculated by:

a)measuring the distance of the observed y-values from the predicted y-values at each value of x;

b)squaring each of these distances;

c)calculating the mean of each of the squared distances.

Linear regression fits a line to the data by finding the regression coefficient that results in the smallest MSE.