WORK SHEET – SET- 1

Ans1:	(A)	Least Square Error
Ans2:	(A)	Linear regression is sensitive to outliers
Ans3:	(B)	Negative
Ans4:	(A)	Regression
Ans5:	(C)	Low bias and high variance
Ans6:	(A)	Descriptive model
Ans7:	(D)	Regularization
Ans8:	(D)	SMOTE
Ans9:	(A)	TPR and FPR
Ans10:	(A)	True
Ans11:	(B)	Apply PCA to project high dimensional data
Ans12:	(A & B)	

Ans13: 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.

Ans14: Algorithms that are used for regularization are : LASSO, Ridge Regression, Elastic Net Regression.

Ans15: The error term is the stuff that isn't explained by the model.

Cont__

Python – Worksheet 1

Ans1:	(C)	%
Ans2:	(B)	Zero
Ans3:	(C)	24
Ans4:	(A)	2
Ans5:	(D)	6
Ans6:	(C)	the finally block will be executed no matter if the try block raises an error or not.
Ans7:	(A)	It is used to raise an exception.
Ans8:	(A)	in defining an iterator.
Ans9:	(C)	abc2
Ans10:	(A & B)	

Ans11:

```
num = 9
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*i
  print("The factorial of",num,"is",factorial)
```

```
The factorial of 9 is 362880
```

Cont__

Ans12:

```
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 a neither prime NOR composite number")
else:
   print(num, "is NOT a prime number it is a COMPOSITE number")
```

```
Enter any number : 7
7 is a PRIME number
```

Ans13:

```
# Program to check if a string is palindrome or not
my_str = 'aIbohPhoBiA'
my_str = my_str.casefold()

rev_str = reversed(my_str)
if list(my_str) == list(rev_str):
  print("The string is a palindrome.")
else:
  print("The string is not a palindrome.")
```

```
The string is a palindrome.
```

Cont__

Ans14: Don’t know how to do it

Ans15: # Given string

```
strA = "timeofeffort"

print("Given String: ",strA)

# Using counter

res = {}


for keys in strA:


   res[keys] = res.get(keys, 0) + 1


# Result

print("Frequency of each character :\n ",res)
```

```
Given String:  timeofeffort
Frequency of each character :
  {'t': 2, 'i': 1, 'm': 1, 'e': 2, 'o': 2, 'f': 3, 'r': 1}
```

STATISTICS WORKSHEET-1

Ans1:	(A)	True
Ans2:	(A)	Central Limit Theorem
Ans3:	(B)	Modeling bounded count data
Ans4:	(D)	all of the mentioned
Ans5:	(C)	Poisson
Ans6:	(B)	False
Ans7:	(B)	Hypothesis
Ans8:	(A)	0

Ans9: (B) Outliers can be the result of spurious or real processes

Ans10: a probability distribution that is symmetric about the mean, showing that data near the mean are more frequent in occurrence than data far from the mean.

Ans11: In cases where there are a small number of missing observations, we can calculate the mean or median of the existing observations. .

K Nearest Neighbors.
Missing Value Prediction.
Average or Linear Interpolation.
Maximum or Minimum Value.
Most Frequent Value.

Ans12: a methodology for comparing two versions of a webpage or app against each other to determine which one performs bette

Ans13: Mean imputation is typically considered terrible practice since it ignores feature correlation

Ans14: a data analysis technique that predicts the value of unknown data by using another related and known data value.

Ans15: There are two branches in statistics:

1. Descriptive statistics.
2. inferential statistics.