PYTHON

Ans.1)- B) struct

Ans.2)-C) 1_no

Ans.3)-C) on

Ans.4)-A) Left to Right

Ans.5)-C) iv – iii – ii – i

Ans.6)-C) 0.3333…

Ans.7)-B) str

Ans.8)- A, B

Ans.9)- C) a,b,c = 1000, 2000, 3000

Ans.10)- B, D

Ans.11)- A list is a collection of ordered data. A tuple is an ordered collection of data. A set is an unordered collection. A dictionary is an unordered collection of data that stores data in key-value pairs.

Ans.12)- In python, **the string data types are immutable**.

-code to replace '+' with space in "I+Love+Python"

a = "I+Love+Python"

a.replace("+"," ")

Output= "I Love Python"

Ans.13)- The ord() function returns the number representing the unicode code of a specified character.

Example-

The function for getting the data type of a variable in python-

a = "I+Love+Python"

type(a)

Output= str

Ans- 14 & 15)- Link – https://github.com/Chandrakanta11/FlipRobo/blob/main/Worksheet/WS2%20-%20PYTHON.ipynb

MACHINE LEARNING

Ans.1)- C) They are not optimal to use in case of outliers.

Ans.2)- D) All of the above.

Ans.3)- B) They make sure that there is no data point present in the margin area.

Ans.4)- A) They take the data from lower dimensional space to some higher dimensional space in case the data is not likely to be linearly separable.

B) They use the kernel tricks to escape the complex computations required to transform the data

Ans.5)- A) These functions gives value of the dot product of pairs of data-points in the desired higher. dimensional space without even explicitly converting the whole data in to higher dimensional space.

Ans.6)- C) It is a model trained using supervised learning. It can be used for classification and regression.

Ans.7)- D) All of the above

Ans.8)- C) The data is noisy and contains overlapping points.

Ans.9)- A) Misclassification would happen.

Ans.10)- B) How accurately the SVM can predict outcomes for unseen data.

STATISTICS

Ans.1)- C) Type I; Type II

Ans.2)- B) We have made a correct decision

Ans.3)- B) critical value

Ans.4)- B) A Type I error was made.

Ans.5)- C) x = 17 s , = 7

Ans.6)- A) fail to reject H0

Ans.7)- C) At $\alpha = 0.05$, reject the null hypothesis.

Ans.8)- B) 0.041

Ans.9)- C) 0.958

Ans.10)- C) Left tail

Ans.11)- A) Less than the significance level

Ans.12)- A) 0.750

Ans.13)-The Z distribution is a special case of the normal distribution with a mean of 0 and standard deviation of 1. The t-distribution is similar to the Z-distribution, but is sensitive to sample size and is used for small or moderate samples when the population standard deviation is unknown.

Ans.14)- The *t*-distribution is used as an alternative to the normal distribution when sample sizes are small in order to estimate confidence or determine critical values that an observation is a given distance from the mean. It is a consequence of the sample standard deviation being a biased or underestimate (usually) of the population standard deviation.

Ans.15)- The t-distribution describes the standardized distances of sample means to the population mean when the population standard deviation is not known, and the observations come from a normally distributed population.