

WORKSHEET 2

PYTHON

1. B) struct
2. C) 1_no
3. A) in
4. A) left to right
5. C) iv-iii-ii-i
6. C) 0.3333....
7. B) str
8. A) Division and multiplication have same precedence in python
D) In case of operators' having the same precedence, the one on the left side is executed first
9. A),C),D)
10. A),C)
- 11.

| LIST | TUPLE | SET | DICTIONARY |
|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------|-------------------------------------------------------------|
| Non-homogeneous data structure that stores the elements in single rows and columns | Non-homogeneous data structure that stores single row and multiple rows and columns | Non-homogeneous data structure but stores in single row | Non-homogeneous data structure which stores key value pairs |
| Represented by [] | Represented by () | Represented by {} | Represented by {} |
| Mutable, ordered and changeable | Immutable, ordered and unchangeable | Mutable, unordered and unchangeable | Mutable, ordered and changeable |
| Allow duplicate values | Allow duplicate values | Allow duplicate values | No duplicate values |
| | | | |
| | | | |
| | | | |

12. No, String is immutable that cannot change the value.

```
In: str="I+LOVE+PYTHON"
```

```
    str.replace("+"," ")
```

```
out: 'I LOVE PYTHON'
```

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

Syntax: ord(ch) where ch – a unicode character

Example:

```
In: print(ord('5'))
```

```
Out: 53
```

Type() function for getting the data type of a variable in python

STATISTICS

1. c. Type i, Type ii
2. b. We have made a correct decision
3. b. critical value
4. b. A Type I error was made
5. a. $x=23, s=3$
6. a. fail to reject H_0
7. c. At $\alpha=0.05$, reject the null hypothesis
8. b. 0.041
9. c. 0.958
10. c. Left tail
11. a. Less than the significance level
12. b. 0.375
13. The t-distribution also known as student's t-distribution. It is a type of normal distribution that is used for smaller sample sizes. It forms a bell shape curve when plotted on a graph with greatest number of observations close to the mean and fewer observations in the tails but the population variance is unknown. The variance in a t-distribution is estimated based on the degrees of freedom of the data set.

The z-distribution also called the standard normal distribution. It is a special normal distribution where mean is 0 and standard deviation is 1. Any normal distribution can be standardized by converting its values into z scores. Z scores tell you how many standard deviations from the mean each value lies.

14. Yes, t-distribution is normal that is used for smaller sample sizes.
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.

MACHINE LEARNING

1. B)
2. D)
3. D)
4. B)
5. C)
6. C)
7. D)
8. C)
9. A)
10. B)