AI1110 ASSIGNMENT-3

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Abstract—**This document contains the solution for Assignment 3 (NCERT GRADE 9 Exercise 14.2 Q.2)**

EXERCISE 14.2
Question 2:

The distance (in km) of 40 engineers from their residence to their place of work were found as follows:

5	3	10	20	25	11	13	7	12	31
19	10	12	17	18	11	32	17	16	2
7	9	7	8	3	5	12	15	18	3
12	14	2	9	6	15	15	7	6	12

TABLE I

Construct a grouped frequency distribution table with class size 5 for the data given above taking the first interval as 0-5 (5 not included).What main features do you observe from this tabular representation?

Solution:

As we are required to construct a grouped frequency distribution table with class size 5 and taking the first interval as 0-5 (5 not included) , the classes are 0-5 , 5-10 , 10-15 , 15-20 and so on.

The data represented in the grouped distribution table will be as :

Distance (in Km)	Tally Marks	Frequency
0 - 5	ⵌ	5
5 - 10	ⵌ ⵌ|	11
10 - 15	ⵌ ⵌ|	11
15 - 20	ⵌ ||||	9
20 - 25	|	1
25 - 30	|	1
30 - 35	||	2
Total		40

TABLE II
FREQUENCY DISTRIBUTION TABLE

Presenting data in this form simplifies and condenses data and enable us to observe certain important features at glance . This is called a "Grouped Frequency Distribution table".

We observe that the classes in the table above are non-overlapping.

We also observe that the number of houses of the engineers whose distance from work place is less than 20 km are

$$5 + 11 + 11 + 9 = 36 \tag{1}$$

i.e, 36 houses.