

Q.1 Group the given data into four categories for Bright and Dark traits. Where categories are A(1-0),B(3-2), C(6-4) and D(7-10).

For each student calculate the average of bright traits and dark traits and assign them into a category.

Bright traits: LOGIC, CONCENTRATION, FOCUS, COGNITIVE SKILL, RETENTION POWER, HARD WORKING, STUDY HABIT, CONSCIOUSNESS

Dark Trait: SILLY MISTAKES,KNOWLEDGE GAP, IMPULSIVE, LEARNING GAP

Q.2 Write a Python program that counts the frequency of each word in a given text document. Remove any punctuation marks and convert all words to lowercase before counting. Display the top 5 most frequent words along with their frequencies. Also calculate the below parameters.

The formulas for calculations are :

Positive Score: This score is calculated by assigning the value of +1 for each word if found in the Positive Dictionary and then adding up all the values.

Negative Score: This score is calculated by assigning the value of -1 for each word if found in the Negative Dictionary and then adding up all the values. We multiply the score with -1 so that the score is a positive number.

Polarity Score: This is the score that determines if a given text is positive or negative in nature. It is calculated by using the formula:

$$\text{Polarity Score} = (\text{Positive Score} - \text{Negative Score}) / ((\text{Positive Score} + \text{Negative Score}) + 0.000001)$$

Range is from -1 to +1

Average Sentence Length = the number of words / the number of sentences

Note :- Use the given paragraph.txt for calculations