**PRACTICAL – 10**

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**AIM:** To calculate trend using spencer’s 15-point formula.

**EXPERIMENT:**

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**THEORY:**

1. Spencer's 15-point formula requires 15 points to calculate one single trend value.
2. y = 1/320 [4]²[5][-9,22,-9]yt, is the formula which is correct up to 3rd differences.
3. For higher differences, we can add factors involving higher differences without affecting the accuracy of the results. Hence the formula for this is:

y = 1/320 [4]²[5][-3,3,4,3,-3]yt

**CALCULATIONS:**

TABLE-10.1



GRAPH-10.1

**RESULT:**

1. Trend values have been calculated using spencer’s 15 point formula, and are shown in TABLE 10.1.
2. GRAPH 10.1 shows the line graph plotted for the given data and the calculated trend.

**CONCLUSION:**

1. The wheat production follows an overall upward trend.