AILET

Quantitative Techniques: Data Interpretation for CLAT 2021

Aditya Anand · 29 Jan 2021

Data Interpretation for CLAT 2021

As per the latest sample paper released by CLAT, it is very evident that CLAT 2021 paper would no longer have basic mathematical problems but the portion of Quantitative Techniques would have Data in the form of **Tables**, **Pie chart**, **Bar Graph** or **Line Graph** and questions will be based on the interpretation of that data.

Data interpretation would require you to gain expertise and speed in calculations along with basic logical reasoning.

I would suggest you to please first get comfortable with the concept of Percentages before diving in the data practice sample papers. Also, there will be an article soon posted for basic speed mathematics calculation tricks that you must master to save time for other sections of the exam.

Hence we will be first discussing basics of a different form of data(tabular, pie chart, line graph, bar graph) with one sample problem, and there will be practice papers for all the above forms of data.

Tabular Data

In Tabular form, data is arranged in rows and columns. This form of data is most convenient and versatile for interpretation and thus drawing conclusions become easier in this form of data.

Some Tips for Tabular form of data:

- Read the question and options along with instructions before solving or interpreting data.
- In this form of data, there can be a lot of rows or columns that you don’t need to solve and are given just to confuse you, beware of such data.
- Always check units before marking any question as a miss in single-digit can lead to an entirely different answer.

- Check if the data is given in percentage or decimal as both are totally different in the calculation.

Sample Problem: Number of Employees of various departments of Parle India for the year 2011 to 2017 is given. Answer the questions based on the data provided.

Year	Production	Marketing	Finance	Research	HR
2011 2012 2013 2014 2015 2016 2017	150 230 400 525 540 600 625	35 40 48 52 50 55 58	45 42 50 54 52 70 65	60 68 75 82 80 87 95	25 27 32 35 34 40 42

Questions:

1. In which year the number of employees was 140% more than the no. of employees in 2011.

(a)2013 (b) 2014 (c) 2015 (d) 2016

Solution: Look at the options first, 4 options for the answer are: 2013, 2014, 2015 and 2016.

As we need the total no of employees, in each department, in question paper only after the last column you can write down the sum of no. of employees.

Now, an increase of 140% in no. of employees of 2011, i.e., as per increase in p% concept we can write as x(1+140/100)=x(2.14).

Here, x is the total number of employees in the year 2011, x= 315 therefore 140% increase in 315 will be 756 i.e., no. of employees in the year 2015. Hence, the option (c) will be your answer.

1. In how many years, the number of employees in the production department is more than 50 % of total employees?

(a) 2 (b) 5 (c) 4 (d) 6

Solution:

Logical deduction based solution

As in the last question you would have calculated the total number of employees in different years, this question can be solved orally by just looking at numbers.

More than 50% would require you to just calculate 50% of the total employees, for example, 315/2=102(approx.), 407/2=203(approx.) while no of employees in 2012 in the production dept. is 230 hence more than 50% similarly calculate for other years.

In whichever year you find the number of employees in the production department is more than 50% make a tick at one side and check further you will find that out 7 years, except 2011 in all other years no. of employees in the production department is 50% more than total no. of employees.

Alternative: Calculation based solution

Percentage of employees of production department wrt to total employees:

In 2011 : 150*100/315 = 47.6%

In 2012: 230*100/407 = 56.51%

In 2013: 400*100/605 = 66.11%

In 2014: 525*100/748 = 70.18%

In 2015: 540*100/756 = 71.4%

In 2016: 600*100/852 =70.42%

In 2017: 625*100/885=70.62%

Except 2011 in all other years the percentage of production department employees is more than 50%.

1. Which department has less than 10% of the employees throughout all the years?

- HR (b) Marketing (c) Finance (d) Research

Solution: Conventional Method: Checking %age of employees in all the years for the 4 options(departments) mentioned in the question and then marking the answer.

Year	Production	Marketing	% of Marketing Dept. employees	Finance	% of Finance Dept. employees	Research	% of Research Dept. employees	HR	% of HR Dept. employees
2011	150	35	11%	45	14%	60	19%	25	8%
2012	230	40	10%	42	10%	68	17%	27	7%
2013	400	48	8%	50	8%	75	12%	32	5%
2014	525	52	7%	54	7%	82	11%	35	5%
2015	540	50	7%	52	7%	80	11%	34	4%
2016	600	55	6%	70	8%	87	10%	40	5%
2017	625	58	7%	65	7%	95	11%	42	5%

Alternative: Shortcut method

Just look at the total no of employees and calculate 10% of it orally, 10% of 315=31.5, 105 of 407= 40.7and similarly 10% of other years.

Check the percentage with respective no. of employees of different department and different years. Within 2 minutes you will be eliminating options and come up with HR as the correct answer.

NOTE: Also, be careful the question says throughout all the years hence you cannot just mark marketing or finance as the answer because in most of the years they have less than 10% of employees. The no. of employees should be less than 10% in all the years.

Read our other posts on Quantitative Techniques.