RBI PHASE 1 RECAP

25th JULY ‘18

QUANT- DATA INTERPRETATION (BAR GRAPH)
Explanation of the term Data Interpretation
First, let’s discuss the word “Data” and “Interpretation” used in Data Interpretation.

Data:
Data is based on facts and statistics collected together for reference or analysis. Data in numerical format helps us to draw conclusions by comparing the data.

Interpretation:
Interpretation is the act of explaining, re-framing or otherwise showing your own understanding of something.

Data Interpretation:
Data interpretation is an act of analysing data with the objective to gain useful information from it. It is done to draw conclusions from the given data. Different statistical tools are used to represent the data in organized structures.
Different method in which data can be presented to solve Data Interpretation Questions:

Different methods to solve data Interpretation questions are:
1)) Table chart
2)) Bar Chart
3)) Pie Chart
4)) Line Graph

Bar Graphs:
A bar graph or bar chart represents explicit data with rectangular bars. The heights and lengths of these bar graphs are proportional to the values of data they represent. There are two types of bar graph, one is called horizontal bar graph and other is called vertical bar graph. The important thing to remember is that the longer the bar, the greater its value. Bar graphs made up of two axis, one is called x-axis and other is called y-axis. In a horizontal bar graph, y-axis shows the data categories and x-axis shows the scale. In vertical bar graph, x-axis shows the data categories and y-axis shows the scale. In a nutshell, we can compare easily different sets of data between different groups with the help of bar graph.
I.1) The following bar graph gives the percentage of unemployed population in the urban and rural areas of U.P. during the different months of the year 2017.

<table>
<thead>
<tr>
<th></th>
<th>Overall</th>
<th>Urban</th>
<th>Rural</th>
</tr>
</thead>
<tbody>
<tr>
<td>March '17</td>
<td>4.7</td>
<td>4.1</td>
<td>3.3</td>
</tr>
<tr>
<td>May '17</td>
<td>5.9</td>
<td>4</td>
<td>3.7</td>
</tr>
<tr>
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<tr>
<td>Sep '17</td>
<td>6.1</td>
<td>4</td>
<td>4.7</td>
</tr>
<tr>
<td>Nov '17</td>
<td>5.6</td>
<td>4.3</td>
<td>4.8</td>
</tr>
</tbody>
</table>

Total unemployed population of U.P. (in lakhs) in the given months

<table>
<thead>
<tr>
<th>Month</th>
<th>Total Unemployed Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>March '17</td>
<td>219</td>
</tr>
<tr>
<td>May '17</td>
<td>220</td>
</tr>
<tr>
<td>July '17</td>
<td>232</td>
</tr>
<tr>
<td>Sep '17</td>
<td>240</td>
</tr>
<tr>
<td>Nov '17</td>
<td>252</td>
</tr>
</tbody>
</table>
Q.1) What is the ratio of urban unemployed population to rural unemployed population in the month of March 2017?

[a] 1:2
[b] 1:3
[c] 2:3
[d] 5:8

Solution (a)
By using allegation method:

<table>
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overall
4.7

4.7-4.1 = 0.6
5.9-4.7 = 1.2

Ratio = 1:2
I.2) The following bar graph gives the percentage of unemployed population in the urban and rural areas of U.P. during the different months of the year 2017.

<table>
<thead>
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</table>
Q.2) What is the number of the urban unemployed people in the month of July ‘17?
[a] 174 lakhs
[b] 58 lakhs
[c] 77.33 lakhs
[d] none of these

Solution 2. (b)
By using allegation method:

\[
\begin{array}{c|c|c}
\text{Urban} & \text{rural} & \\
4.2 & 3 & \\
\hline
\text{Overall} & 3.3 & \\
\end{array}
\]

\[
\frac{3.3-3}{4.2-3.3} = \frac{0.3}{0.9}
\]

Ratio = 1:3
Total unemployed population = 232 lakhs
Urban unemployed = \( \frac{1}{4} \times 232 = 58 \) lakhs
I.3) The following bar graph gives the percentage of unemployed population in the urban and rural areas of U.P. during the different months of the year 2017.

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Total unemployed population of U.P. (in lakhs) in the given months

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Q.3) In which month the rural unemployed population is lowest among the months of March, May and July of 2017?

[a] May
[b] July
[c] March
[d] March and July

Solution 3. (c)

By using allegation method as Q.1 and 2, we find the ratio of the urban unemployed population to the rural unemployed population.

Ratio in March ’17 = 1:2
Total population in March = 219 lakhs
rural unemployed population = \( \frac{2}{3} \times 219 = 146 \) lakhs

ratio in May ‘17=1:3
total unemployed population = 220 lakhs
rural unemployed population = \( \frac{2}{3} \times 220 = 165 \) lakhs

ratio in July = 1:3
total unemployed population = 232 lakhs
rural unemployed population = \( \frac{2}{3} \times 232 =174 \) lakhs

Hence, in the month of March the rural unemployed population is lowest.
I.4) The following bar graph gives the percentage of unemployed population in the urban and rural areas of U.P. during the different months of the year 2017.

### Total unemployed population of U.P. (in lakhs) in the given months

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Q.4) what is the number of urban unemployed people in the month of September and November together?

[a] 176.9 lakhs
[b] 315 lakhs
[c] 186.9 lakhs
[d] none of these

Solution (a)
By using allegation method as above questions, we find the ratio of urban to rural population for the month of Sep. and Nov.:

Ratio of urban to rural unemployed population in Sep.= 1:2
No. of People = 1/3 x 240 = 80 lakhs

Ratio in November = 5:8
No. of people = 5/13 x 252 = 96.9 lakhs
Total urban unemployed population in both months = 80 + 96.9 = 176.9 lakhs
The following bar graph gives the percentage of unemployed population in the urban and rural areas of U.P. during the different months of the year 2017.

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Q.5) In how many of the given months, the ratio of urban unemployed population to rural unemployed population is 1:2?

[a] 4
[b] 3
[c] 1
[d] 2

Solution (d)
Ratio of urban and rural unemployed population in given months:
March = 1:2
May = 1:3
July = 1:3
September = 1:2
November = 5:8
Hence, there are 2 months in which ratio is 1:2.