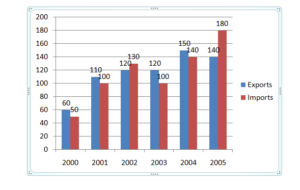
BAR GRAPH



Q. Out of the given years, in how many did the export was more than 10% as compared to the import?

A. 1                            B. 2

C. 3                           D. 4

Answer: In the year 2000, exports were 60 while the imports were 50.  So 10% of 50 is 5. And thus the total will be 55. Here 60 > 55. Similarly in 2001, 110 = 10% of 100.

In 2002, 120 < 130. For 2003, 120 > 10% of 100. For 2004, 150 < 10 % of 140.

In 2005, 190 < 10 % of 180. So there are years i.e. 2000 and 2003 where exports were 10 % greater than the imports. So the correct answer is B.

Q. For all the years mentioned what is the average of the exports?

A. 110                    B. 120

C. 125                    D. 130

Answer: Here from the figure the average of the exports will be: (60 + 110 + 120 + 120 + 150 + 190)/ 6 = 125. So the correct answer is C.

Q. From the numbers given in the figure below, what will be the average annual growth for the imports done from 2001 to 2005?

A. 11                        B. 12.5

C. 13.5                    D. 14.5

Answer: Imports done in 2001 = 110

Imports done in 2005 = 190

So, the annual growth = (190 – 110)/110 \* 100 = 72.72%

Now, the average growth will be 72.72/ 5 = 14.5. So the correct answer is D.

Q. From 2000 to 2005 in which was the growth in imports as compared to the previous years was the highest?

A. 2001                    B. 2002

C. 2004                   D. 2005

Answer: From the figure, we can determine that imports grew only in 2001, 2002, 2004, and 2005.

For 2001, (50 \* 100) / 60 = 83.33

For 2002, (10 \* 100) / 110 = 9.09

For 2004, (30 \* 100) / 120 = 25

For 2005, (40 \* 100) / 150 = 26.66

Thus the correct answer is A. This type of questions can be solved quickly if you compare the base for every year. Here for 2001, the base value is 60 and thus chances are high the growth in 2002 must have been higher. You can look for this in the exams and start by solving 2002. This will save a lot of your time.

Q. In how many years does the export as well as import increases as compared to the previous years. And among them, in how many years was the percentage increase in export was greater than the percentage increase in imports

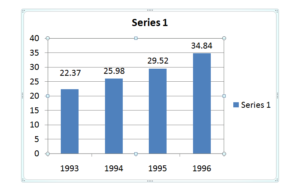
A. 0                         B. 1

C. 2                         D. 4

Answer: Out of all the years given in the figure, the imports and exports as compared to the previous are increased in every year except 2000 and 2003. Out of the four in which imports and exports have increased, in no year does the percentage increase in export is greater than the percentage increase in imports. Thus the correct answer is A.

**Practice Questions**

Q. In the following graph, the increase in the wheat over years is shown. Based on this answer the questions below.



1. How much does the wheat grow in 1994 as compared to the previous year?

A. 12.2%                 B. 13.6%

C. 16.1%                 D. 17.8%

Ans: The correct answer is C.

Q. What was an increase in the average rate of growth of wheat from 1993 to 1995?

A. 13%                    B. 12%

C. 14%                    D. 16%

Ans: The correct answer is D.

Q. How much percentage of growth of wheat was less in 1994 as compared to 1993?

A. 13.9%                B. 12.2%

C. 11.9%                 D. 14.6%

Ans: The correct answer is A.

Q. What was the average of the total wheat, grew from 1995 to 1997?

A. 22 tonnes          B. 26 tonnes

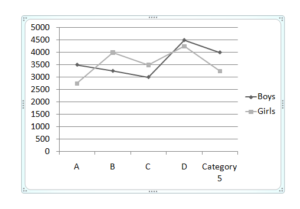
C. 28 tonnes          D. 25 tonnes

Ans: The correct answer is B.

**Line Chart**

The line chart is nothing but an upgraded version of a bar chart. It is formed by connecting the uppermost point of the bars so that we have a line. By repeating this following process, with other bars as well we will get a line chart. The calculations can be tough but the main aim of the examiner is to check whether you can apply logic to eliminate options and evaluate the graph thereby getting the answer.

On the basis of the figure below answer the following question. In the graph, the number of boys and girls are given in five schools. Study this graph properly and answer the questions.



Q. What percentage will be the number of girls in school A out of the total number of girls in all the schools?

A. 15                       B. 17

C. 22                      D. 24

To solve this question there are several different approaches. Let’s look into each approach one by one.

First method

For the first method, we can calculate the number of girls simply by adding all the girls in the schools and then taking the girls from school A as the numerator thereby calculating the total percentage of girls. For example, in this question, the total number of girls is 17750 and the girls in school A as a part of all the girls in all the schools will be (2750/17750) x 100 = 15.4%

The major roadblock in this method is that it requires a lot of calculation and there are chances that you may calculate in exam properly which might lead to silly mistakes. And that is why we have given a second approach to this question.

Second method

This method is based on the estimation. In this method, you have to suppose a baseline and then from the given options, you have to assume which is the closest to the answer. Suppose, there are 5 schools and every school has an equal number of 10 girls so the average will 10 and the percentage will 20%. Same will be the case for 100 girls with 5 schools. Here the percentage will be dependent on the number of schools.

In the above question also assume a baseline at the centre of the figure. As there are five schools given in the question the percentage will be 20% but the base-line is above the number of girls in A. So we can say that the number of girls in school A will be less than 20%. Thus options 3 and 4 can be negated. Now for the remaining options when we look at E and compare it with A, there is the larger difference and so 17% cannot be answered as well. Thus the remaining option is 15 which is the correct answer.

This method should only be done when the options are not very close. Thus the correct answer is (1).

**Q. Which class has the percentage of boys and girls as part of the total students in all the schools?**

A. A                      B. B

C. C                      D. D

From the figure you can see the highest of boys and girls in one school is in D. As the base for all the schools remains a same i.e. total number of students all the schools will be same for every school then we can say that in school the percentage of students is the highest. Thus the correct option is (3).

**Q. Which school has the lowest number of students?**

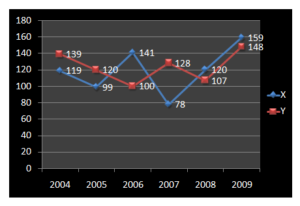
A. A                      B. B

C. C                      D. D

In school C the number of students is the lowest. Thus the correct option is (3).

**Practice Questions**

In the given figure number of laptops prepared by two different companies is given from 2004 to 2009. Answer the questions based on the figure below.



Q. What will be the difference in the number of laptops made by the company X in the year 2004 and 2005?

A. 10000                 B. 20000

C. 30000                 D. 40000

The correct answer is B.

Q. The production of the laptop by the company Y was how much percentage of the production by company X in the year 2007?

A. 120                      B. 148

C. 152                      D. 164

The correct answer is D.

Q. For all the given years in the figure, what is the total number of laptops made by both the companies?

A. 144000             B. 145000

C. 145800             D. 146200

The correct answer is C.

Q. What was the maximum difference between the manufacturing of laptop by both the companies?

A. 40000              B. 41000

C. 45000              D. 51000

The correct answer is D.

**Pie Chart**

Pie charts are different types of data presentation. This data is presented in the form of a circle. There are segments and sectors into which a pie chart is being divided and each of these segments and sectors forms a certain portion of the total(in terms of percentage). In the pie-chart, the total of all the data is equal to 360 degrees. The degree of angles that are used to represent different items are calculated in the form of proportionality. Let us know more about them.

Suggested Videos

Area of Triangles

Coin Toss

VST Permutations and Combinations Problem 1 and its Solution

Area of Triangles

Coin Toss

VST Permutations and Combinations Problem 1 and its Solution

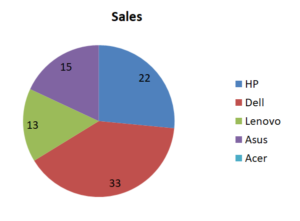
**Pie charts**

In pie charts, the entire diagram looks like a pie and the components in it resembles the various slices cut from the pie. The pie-chart is thus used to show the break-up of one continuous variable into its components parts.



                                                                                                                                        Source: Pixabay

For, the example you can see the distribution of sales of the laptop industry between five companies:



|  |  |
| --- | --- |
| **Company** | **% in market share** |
| HP | 22 |
| Dell | 33 |
| Lenovo | 13 |
| Asus | 15 |
| Acer | 17 |

The pie chart represented above shows a circle of 360 degrees which represents 100 % of the values of the continuous variable. Thus, 3.6 degree of the pie chart represents 1 % of the total values of the variables being represented. Pie-charts are more versatile than the bar graphs, tables or two variables graphs. It also represents the clear and precise data that needs to display. Thus, also helps you establish the relationship between different sectors.

**Browse more Topics under Data Interpretation**

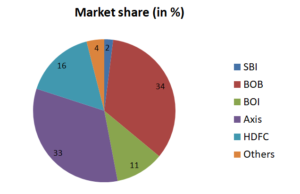
* [Bar Graph](https://www.toppr.com/guides/quantitative-aptitude/data-interpretation/bar-graph/)
* [Line Chart](https://www.toppr.com/guides/quantitative-+aptitude/data-interpretation/line-chart/)
* [Tabular Form](https://www.toppr.com/guides/quantitative-aptitude/data-interpretation/tabular-form/)
* [Caselet Form](https://www.toppr.com/guides/quantitative-aptitude/data-interpretation/caselet-form/)
* [Radar/Web](https://www.toppr.com/guides/quantitative-aptitude/data-interpretation/radar-web/)
* [Missing Data Interpretation](https://www.toppr.com/guides/quantitative-aptitude/data-interpretation/missing-data-interpretation/)
* [Data Interpretation Practice Questions](https://www.toppr.com/guides/quantitative-aptitude/data-interpretation/data-interpretation-practice-questions/)

Solved Examples

Directions:

The following pie-chart shows the market share of different banks in India. Based on this pie-chart determine the questions given below.

1. If the value of the market share of BOI is Rs. 4000 crores, then the market share of BOB and Axis bank together is:



A. 24,363 crores  
B. 24,432 crores  
C. 24,864 crores  
D. 25, 827 crores

This is the most common question asked in the pie chart section. You will be given the share price and based on its comparison with the percentage given in the question you need to determine the answer. Thus, in this question, you can see that BOI accounts for 11 % of the market share. And this 11 % is equal to the 4000 crores. So to calculate the total market share of BOB and axis the formula will be, 67/11 x 4000 = 24,363. Thus, the correct answer is A.

2. If the total market share other than Axis and BOB is Rs. 335,000 crores. Then find the market share of BOI and HDFC banks.

A. 274,560 crores  
B. 274,090 crores  
C. 274,809 crores  
D. Cannot be determined

Here, from the pie-chart, you can determine that the total market share of Axis and BOB in terms of percentage is 67 % and this is equal to Rs. 335,000. In addition to this the other banks that are left accounts for 33 % which equates to 35,000 crores. HDFC and BOI equal the market share of 27 %. Thus, their market share in terms of crores is 27 x 335000/33 => 274090 crores. So, the correct answer is C.

More Questions

3. Find the approximate ratio of market share between BOI and BOB.

A. 1: 2  
B. 3: 1  
C. 1 : 3  
D. Not possible

Take the market share of BOB and BOI and compare them both to find the ratio. As a result, the market share of BOB is given as 34 % and the market share of BOI is given as 11 %. So, the ratio of market share of BOI to a market share of BOB will be 11: 34. This will be close to 1 : 3. So, the correct answer is C.

4. If the market share of Axis banks doubles in the next year while the market share of all the other banks remains constant at their existing levels, then what would be the proportion of Axis as the total proportion of the market share in India in next year?

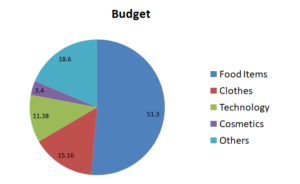
A. 45 %  
B. 50 %  
C. 55 %  
D. 62 %

We need to determine the market share Axis bank for next year. For the current year, the share of Axis bank is 33 %. So now we need to determine the next year share of Axis bank. It is given that this share of Axis bank will be doubled while the shares of the other banks are constant. So the total percentage of all the shares will be 133 because Axis bank will 66 % of the market share. 66 is 50 % of 133, so the market share of Axis bank in the next year will be 50 %. Thus, the correct answer is B.

**Practice Questions**

Direction:

The following pie-chart shows the distribution of the household items used in the house throughout the year. The information given is in terms of percentage. Study the graph and answer the questions below:



Q. Which of the following items are displayed in the ratio of 1:15.

A. Food items and cosmetics  
B. Technology and Food items  
C. Cosmetics and others  
D. Cosmetics and Food items

The correct answer is D.

2. If the budget of the house is Rs. 20,000, then by what percentage is the expenditure on food items more than the rest of the expenditure?

A. Less than 10 %  
B. 10 – 15 %  
C. 15 – 20 %  
D. More than 20 %

The correct answer is A.

3. If the value of the next budget is twice that of the current one with the break-up of the items being the same, then the ratio of the expenditure on clothes to that of others will be near to…

A. 3: 4  
B. 4: 5  
C. 5: 6  
D. 6: 7

The correct answer is C.

4. If the budget value is Rs. 14,400, then the expenditure on clothes will be near to?

A. Rs. 1800  
B. Rs. 2000  
C. Rs. 2100  
D. Rs. 2200

The correct answer is D.

5. Suppose that the budget value increases to Rs. 36,000 then the expenditure of which of the following sectors equals to the expenditure on other?

A. Clothes and technology  
B. Clothes and technology and cosmetics  
C. Clothes and cosmetics  
D. None of the above

The correct answer is C.

**Data Interpretation Practice Questions**

The following is the Data Interpretation Practice Questions section. We advise you to go through the Data Interpretation Practice Questions once after you are done with the section on data interpretation. Let us see more.

**Data Interpretation Practice Questions**

This section comprises of questions in which certain data regarding common disciplines as [production](https://www.toppr.com/guides/business-economics/theory-of-production-and-cost/meaning-of-production/) over a period of few years, a factory, student report cards, students applying for and qualifying a certain field of study etc are given in the form of a table. The candidate is required to understand the given information and thereafter answer the given questions on the basis of comparative analysis of the data.



Thus, the data collected by the [investigator](https://www.toppr.com/guides/business-economics-cs/descriptive-statistics/sample-investigation/) is arranged in a systematic form in a table called the[tabular form](https://www.toppr.com/guides/quantitative-aptitude/data-interpretation/tabular-form/). In [order](https://www.toppr.com/guides/quantitative-aptitude/number-series/order-and-ranking/) to avoid some heads, again and again, tables are made consisting of horizontal lines called rows and vertical [lines](https://www.toppr.com/guides/maths/basic-geometrical-ideas/lines/) called columns with distinctive heads, known as captions. Let us see some questions of the tabular form below.

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* [Bar Graph](https://www.toppr.com/guides/quantitative-aptitude/data-interpretation/bar-graph/)
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* [Tabular Form](https://www.toppr.com/guides/quantitative-aptitude/data-interpretation/tabular-form/)
* [Caselet Form](https://www.toppr.com/guides/quantitative-aptitude/data-interpretation/caselet-form/)
* [Radar/Web](https://www.toppr.com/guides/quantitative-aptitude/data-interpretation/radar-web/)
* [Pie Chart](https://www.toppr.com/guides/quantitative-aptitude/data-interpretation/pie-chart/)
* [Missing Data Interpretation](https://www.toppr.com/guides/quantitative-aptitude/data-interpretation/missing-data-interpretation/)

Part I

[Directions](https://www.toppr.com/guides/business-management-and-entrepreneurship/direction-and-coordination/elements-of-direction-motivation/) (Qs. 1-5) study the following table and answer the questions given below it.

Production of sugar by six major production units of India in Million Tonnes:

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Production Units | | | | | | |
| Month | A | B | C | D | E | F |
| April | 310 | 180 | 169 | 137 | 140 | 120 |
| May | 318 | 179 | 177 | 162 | 140 | 122 |
| June | 320 | 160 | 188 | 173 | 135 | 130 |
| July | 326 | 167 | 187 | 180 | 146 | 130 |
| August | 327 | 150 | 185 | 178 | 145 | 128 |

1. In which month unit B has a [contribution](https://www.toppr.com/guides/fundamentals-of-economics-cma/indian-economy/contribution-by-some-major-industries/) of approximately 15% in the total sugar production?

a) August         b) June           c) July               d) April

2. Which of the following units shows continuous increase in production of sugar over months?

a) A           b) B          c) C            d) D

3. In the case of Unit E, in which of the following pairs of months the production of sugar was equal?

a) April & June          b) June & July          c) July & August              d) April & May

4. In the month of June, how many units have a [share](https://www.toppr.com/guides/business-laws/companies-act-2013/types-of-shares/) of more than 25% of the total production of sugar?

a) one          b) Three              c) Two                d) Four

5. What was approximate [percentage](https://www.toppr.com/guides/maths/compairing-quantities/uses-of-percentage/) decrease in sugar production of unit B in June as compared to April?

a) 8 %          b) 10 %             c) 15 %             d) 18 %

**Find Your Answers Here**

Q1: (c), Q2: (a), Q3: (d), Q4: (a), Q5: (b)

Part II

Directions (Questions 1 to 6): Study the following table and answer the questions based on it.

The number of candidates appeared qualified and selected in a competitive examination from five [states](https://www.toppr.com/guides/general-knowledge/overview-of-india/india-states-and-union-territories/) Delhi, H. P., U. P., Punjab and Haryana over the years 1994 to 1998.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Delhi | | | H. P. | | | U. P. | | | Punjab | | | Haryana | | |
| Year | App. | Qual. | Sel. | App. | Qual. | Sel. | App. | Qual. | Sel. | App. | Qual. | Sel. | App. | Qual. | Sel. |
| 1997 | 8000 | 850 | 94 | 7800 | 810 | 82 | 7500 | 720 | 78 | 8200 | 680 | 85 | 6400 | 700 | 75 |
| 1998 | 4800 | 500 | 48 | 7500 | 800 | 65 | 5600 | 620 | 85 | 6800 | 600 | 70 | 7100 | 650 | 75 |
| 1999 | 7500 | 640 | 82 | 7400 | 560 | 70 | 4800 | 400 | 48 | 6500 | 525 | 65 | 5200 | 350 | 55 |
| 2000 | 9500 | 850 | 90 | 8800 | 920 | 86 | 7000 | 650 | 70 | 7800 | 720 | 84 | 6400 | 540 | 60 |
| 2001 | 9000 | 800 | 70 | 7200 | 850 | 75 | 8500 | 950 | 80 | 5700 | 485 | 60 | 4500 | 600 | 75 |

Q1: In the year 1997, which state had the lowest [percentage](https://www.toppr.com/guides/quantitative-aptitude/percentages/) of candidates selected over the candidates appeared?

A) Delhi      B) H. P.            C) U. P.                  D) Punjab                 E) Haryana

Q2: The percentage of candidates qualified from Punjab over those appeared from Punjab is highest in the year:

A) 1997             B) 1998            C) 1999          D) 2000             E) 2001

Q3: The percentage of candidates selected from U. P. over those qualified from U. P. is highest in the year:

A) 1997             B) 1998             C) 1999             D) 2000             E) 2001

Q4: The number of candidates selected from Haryana during the period under review is approximately what percent of the number selected from Delhi during this period?

A) 79.5%              B) 81%              C) 84.5%             D) 88.5%            E) 92.5%

Q5: For which state the average number of candidates selected over the years is the maximum?

A) Delhi              B) H. P.             C) U. P.                D) Punjab                 E) Haryana

Q6: What is the approximate percentage of the total number of candidates selected to the total number of candidates qualified for all the five states together during the year 1999?

A) 10%             B) 11%            C) 12%                   D) 12%           E) 14%

**Find Your Answers Here**

Q1: (D), Q2: (D), Q3: (B), Q4: (D), Q5: (A), Q6: (D)

Part III

Directions (Questions 1 – 4): The following table gives the percentage distribution of the population of five states, P, Q, R, S and T on the basis of the poverty line and also on the basis of sex. Study the table and answer the questions based on it.       [Bank PO 2000]

|  |  |  |  |
| --- | --- | --- | --- |
| State | Percentage of Population below Poverty Line | Proportion of Males and Females | |
| Below Poverty Line | Above Poverty Line |
| M : F | M : F |
| P | 35 | 5 : 6 | 6 : 7 |
| Q | 25 | 8 : 5 | 4 : 5 |
| R | 24 | 1 : 2 | 2 : 3 |
| S | 19 | 3 : 2 | 4 : 3 |
| T | 15 | 5 : 3 | 3 : 2 |

Q1: What will be the number of females above the poverty line in the State S if it is known that the population of State S is 7 million?

A) 3 million          B) 2.43 million             C) 1.33 million                D) 5.7 million              E) 1.61 million

Q2: If the male population above the poverty line for State R is 1.9 million, then the total population of State R is:

A) 4.5 million           B) 4.85 million              C) 5.35 million            D) 6.25 million               E) 7.6 million

Q3: What will be the male population above the poverty line for State P if the female population below the poverty line for State P is 2.1 million?

A) 2.1 million             B) 2.3 million            C) 2.7 million               D) 3.3 million             E) 3.4 million

Q4: If the population of males below the poverty line for State Q is 2.4 million and that for State T is 6 million, then the total populations of states Q and T are in the ratio:

A) 1 : 3                B) 2 : 5              C) 3 : 7                  D) 4 : 9            E) 5 : 12

**Find Your Answers Here**

Q1: (B), Q2: (D), Q3: (D), Q4: (B).