DAILY QUESTIONS
9TH JUNE '18
REASONING – DATA INTERPRETATION
I.1) Directions for question: These questions are based on the line graph which represents the EPS (earnings per share) of three different companies X, Y and Z for the years 1995-96 to 1998-99.

EPS = Profit available for shareholders

Number of shares
Q.1) If the three companies X, Y and Z have 40,000, 35,000 and 15,000 shares respectively in 1995-96, then which company has the maximum profit available for shareholders?

[a] Y

[b] Z

[c] X

[d] Both Y and Z

Solution: [d]

Profit available for shareholders in 1995-96 for

\[
X = 0 \times 40,000 = 0 \\
Y = 15 \times 35,000 = \text{Rs. } 5,25,000 \\
Z = 35 \times 15,000 = \text{Rs. } 5,25,000
\]

Therefore, Both Y and Z have equal amount of profit available.
I.2) Directions for question: These questions are based on the line graph which represents the EPS (earnings per share) of three different companies X, Y and Z for the years 1995-96 to 1998-99.

EPS = Profit available for shareholders

Number of shares
Q.2) If company Z had 20,000 and 18,000 shares in 1996-97 and in 1997-98 respectively, then find the percentage change in the profit available for shareholders.

[a] 36%

[b] 26%

[c] 32%

[d] 22%

Solution: [b]

Profit available to shareholders of company Z in 1996-97 and 1997-98 is as follows

1996-97: $25 \times 20,000 = \text{Rs. } 5,00,000$

1997-98: $35 \times 18,000 = \text{Rs. } 6,30,000$

Percentage increase = $\frac{1,30,000}{5,00,000} \times 100 = 26\%$
I.3) Directions for question: These questions are based on the line graph which represents the EPS (earnings per share) of three different companies X, Y and Z for the years 1995-96 to 1998-99.

EPS = Profit available for shareholders

Number of shares
Q.3) If the number of shares of company Y is same in 1995-96 and in 1998-99, then which of the following is true?

[a] Ratio of EPS for these two years is same as that of the profit available to shareholders.

[b] Profit available to shareholders for these two years is same.

[c] Ratio of EPS for these two years is the reciprocal of the ratio of the profits available to shareholders.

[d] Both (A) and (B) are true.

Solution: [a]

Let the number of shares of company Y in both the years be X.

Therefore, Profit available to shareholders in

1995-96 = Rs. (15 x X)

And that in 1998-99 = Rs. (25 x X)

Therefore, Ratio of EPS for these years

= Rs. 15 : Rs.25 = 3 : 5

Also ratio of profits available to shareholders is

15X : 25X = 3 : 5
I.4) Directions for question: These questions are based on the line graph which represents the EPS (earnings per share) of three different companies X, Y and Z for the years 1995-96 to 1998-99.
Q.4) If the companies X and Y have Rs. 600000 and Rs. 3000000 profit available to shareholders in 1998-99, then the ratio of number of shares of X and that of Y respectively is

[a] 5:8 

[b] 3:1 

[c] 10:1 

[d] 2:5

Solution: [c]

The EPS of the shares approximately for the year 1998-99 are Rs. 10 and Rs. 25 respectively.

Therefore, Number of shares of X and Y in 1988-99 is

\[ X = 6,00,000 \quad \text{and} \quad Y = 3,00,000 \]

\[ \frac{5}{25} \]

Therefore, Ratio of shares = \[ \frac{6,00,000}{3,00,000} \] = 10:1
I.5) Directions for question: These questions are based on the line graph which represents the EPS (earnings per share) of three different companies X, Y and Z for the years 1995-96 to 1998-99.

EPS = Profit available for shareholders

Number of shares
Q.5) If the expenditure of company Y in 1997-1998 is 120% of its profit available to shareholders and the company has 60000 shares, then the income of the company is

[a] Rs. 1800000
[b] Rs. 3300000
[c] Rs. 3600000
[d] Rs. 2000000

Solution: [b]

EPS of company Y in 1997-98 is Rs. 25
Therefore, Profit available for Y in 1997-98 = 25 x 60,000 = Rs. 5,00,000
Therefore, Expenditure of company Y = 120% of 15,00,000 = Rs. 18,00,000
Therefore, Income of Company Y = Expenditure + Profit
= 18,00,000 + 15,00,000
= Rs. 33,00,000
I.6) Directions for question: Answer the following questions on the basis of the information given below. The line graphs give the sales and expenditure of a company across five years, starting from 2010. The value of both sales and expenditure for the year 2010 is indexed to 100.

It is known that the profit in 2012 was Rs. 1 crore.
Q.6) In at least how many years did the company make a profit?

[a] 2

[b] 3

[c] 4

[d] 5

Solution: [b]

It is given that the profit in 2012 was Rs. 1 cr.

Therefore, 109 (Sales) > 107 (Expenses)

As the corresponding ratio of sales and profit in 2011 and 2013 are more than 109; we can definitely conclude that the company made a profit in these 107 years.
I.7) Directions for question: Answer the following questions on the basis of the information given below. The line graphs give the sales and expenditure of a company across five years, starting from 2010. The value of both sales and expenditure for the year 2010 is indexed to 100.

It is known that the profit in 2012 was Rs. 1 crore.
Q. 7) In which year was the profit the least?

[a] 2010

[b] 2012

[c] 2014

[d] Cannot be determined

Solution: [d]

The given information is not sufficient to find out in which year the profit was the least.
I.8) Directions for question: Answer the following questions on the basis of the information given below.
The line graphs give the sales and expenditure of a company across five years, starting from 2010. The value of both sales and expenditure for the year 2010 is indexed to 100.

It is known that the profit in 2012 was Rs. 1 crore.
Q.8) In which year was the percentage income in sales the highest?

[a] 2011
[b] 2012
[c] 2013
[d] 2014

Solution: [a]

From 2010 to 2011, the percentage increase in sales was 14%, which was the highest.
I.9) Directions for question: Answer the following questions on the basis of the information given below. The line graphs give the sales and expenditure of a company across five years, starting from 2010. The value of both sales and expenditure for the year 2010 is indexed to 100.

It is known that the profit in 2012 was Rs. 1 crore.
Q.9) If the sales of the company in 2010 was Rs. 250 cr, then what was the profit in 2013?

[a] 8.6 cr  
[b] 10.8 cr  
[c] 11.4 cr  
[d] 14.1 cr

Solution: [b]
Sales in 2010 = 100 units = 250 cr 
1 unit = 2.5 cr 
Sales in 2012 = 272.5 cr (109 x 2.5) 
Profit in 2012 = 1 cr (given) 
Expenditure in 2012 = 107X 
Profit in 2012 = 272.5 – 107X = 1 cr 
X = 271.5/107 
Sales in 2013 
= 118 x 250 = 295 cr. 
100
Profit in 2013 = 118 x 2.5 – 112 x (271.5/107) 
Profit in 2013 
= 295 - 284.2 = 10.8 cr.
I.10) Directions for question: Answer the following questions on the basis of the information given below.
The line graphs give the sales and expenditure of a company across five years, starting from 2010. The value of both sales and expenditure for the year 2010 is indexed to 100.

It is known that the profit in 2012 was Rs. 1 crore.
Q.10) What was the approximate percentage decrease in profit in 2012, when compared to 2011?

[a] 6
[b] 8
[c] 9
[d] Cannot be determined

Solution: [d]
As the value of sales and expenditure cannot be determined, we cannot find the percentage decrease in profits.