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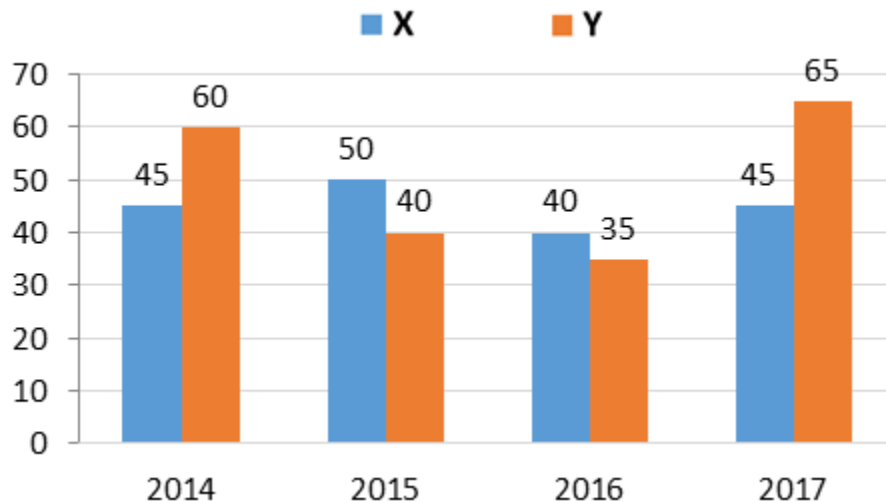
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Date Interpretation Bar Graph Questions for IBPS PO Pre, SBI PO Pre, SBI Clerk Mains and IBPS Clerk Mains Exams.

DI Bar Chart Quiz 32

Directions: Study the graph carefully and answer the following questions.

The following graph gives the percentage of profit earned by two Companies X and Y



1. If the expenditures of Company X and Y in 2015 were equal and the total income of the two companies in 2015 was Rs. 348 crores, what was the total profit of the two Companies together in 2015?

- A. Rs. 88 crores B. Rs. 102 crores C. Rs. 124 crores D. Rs. 108 crores
E. None of these

2. The expenditures of two Companies X and Y in 2017 were in the ratio of 1: 2 respectively. What was the respective ratio of their incomes in 2017?

- A. 29 : 33 B. 29 : 66 C. 33 : 29 D. 66 : 29 E. None of these

3. What is the percentage change in the profit % of company Y from 2014 to 2017?

- A. 4.11% B. 8.33% C. 5.25% D. 8.88% E. None of these

4. If the expenditure of Company Y in 2014 was Rs. 200 crores, what was its income in 2014?

- A. Rs. 275 crores B. Rs. 300 crores C. Rs. 320 crores D. Rs. 333.33 crores E. None of these

5. If the incomes of two companies were equal in 2016, then what was the ratio of expenditure of Company X to that of Company Y in 2016?

- A. 2 : 3 B. 3 : 2 C. 4 : 9 D. 27 : 28 E. None of these

Correct Answers:

1	2	3	4	5
D	B	B	C	D

Explanations:**1.**

$$\% \text{Profit} = \frac{\text{Income} - \text{Expenditure}}{\text{Expenditure}} \times 100$$

Let the expenditures of each companies X and Y in 2015 be Rs. x crores.

Income of Company X in 2015 be Rs. z crores.

Income of Company Y in 2015 = Rs. (348 – z) crores.

For company X

$$50 = \frac{z - x}{x} \times 100$$

$$\rightarrow z = 1.5x \text{ ----- (1)}$$

For company Y

$$40 = \frac{348 - z - x}{x} \times 100 \text{ ----- (2)}$$

Solving (1) and (2), we get x = 120 and z = 180

Total expenditure of Companies X and Y in 2015 = 2x = Rs. 240 crores.

Total income of Companies X and Y in 2015 = Rs. 348 crores.

Total profit = Rs. (348 – 240) crores = Rs. 108 crores.

Hence, option (D) is correct.

2. Let the expenditures of company X and Y be x and 2x respectively

Let the income of X be E_1

Let the income of Y be E_2

For company X

$$45 = \frac{E_1 - x}{x} \times 100$$

$$E_1 = \frac{145}{100}x$$

For company Y

$$65 = \frac{E_2 - 2x}{2x} \times 100$$

$$E_2 = \frac{165}{50}x$$

$$\text{Ratio of incomes} = \frac{E_1}{E_2} = \frac{145}{100} \times \frac{50}{165} = 29 : 66$$

Hence, option (B) is correct.

- 3.** Profit % of company Y in 2017 = 65%
Change in profit % of company Y = 65 – 60 = 5%

$$\text{Required \%} = \frac{5}{60} \times 100 = 8.33\%$$

Hence, option (B) is correct.

- 4.**
- $$\% \text{Profit} = \frac{\text{Income} - \text{Expenditure}}{\text{Expenditure}} \times 100$$

Profit percent of Company Y in 2014 = 60%

Let the income of Company Y in 2014 be Rs. x crores.

$$\frac{x - 200}{200} \times 100 = 60$$

$$x = 120 + 200 = 320$$

Income of Company Y in 2014 = Rs. 320 crores.

Hence, option (C) is correct.

- 5.** Let the incomes of each of the two Companies X and Y in 2016 be E_1 and E_2 respectively.

And let the expenditures of Companies X and Y in 2016 be E_1 and E_2 respectively.

Then, for Company X we have:

$$40 = \frac{x - E_1}{E_1} \times 100$$

$$E_1 = \frac{100x}{140}$$

Also, for Company Y we have:

$$35 = \frac{x - E_2}{E_2} \times 100$$

$$E_2 = \frac{100x}{135}$$

$$\frac{E_1}{E_2} = 135 : 140 = 27 : 28$$

Hence, option (D) is correct.



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