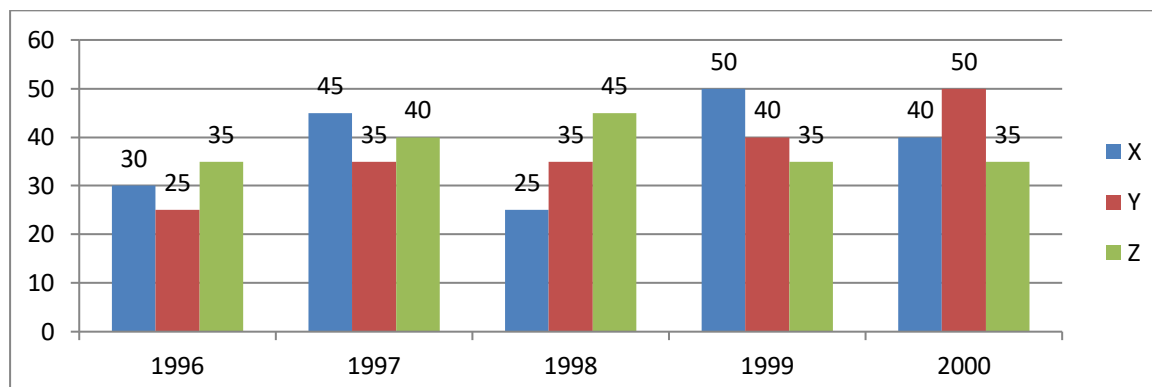


Q1. The bar graph given below gives the data of the production of papers (in lakh tones) by 3 different company X,Y & Z over the years. Study the graph & answer the questions that follow.

Production of paper by 3 companies X,Y & Z over the year. [level 2, Wirpo. TechM]



What is the difference between the production of company Z in 1998 and company Y in 1996?

- a) 2,00,000 tons b) 20,00,000 tons
 c) 20,000 tons d) 2,00,00,000 tons

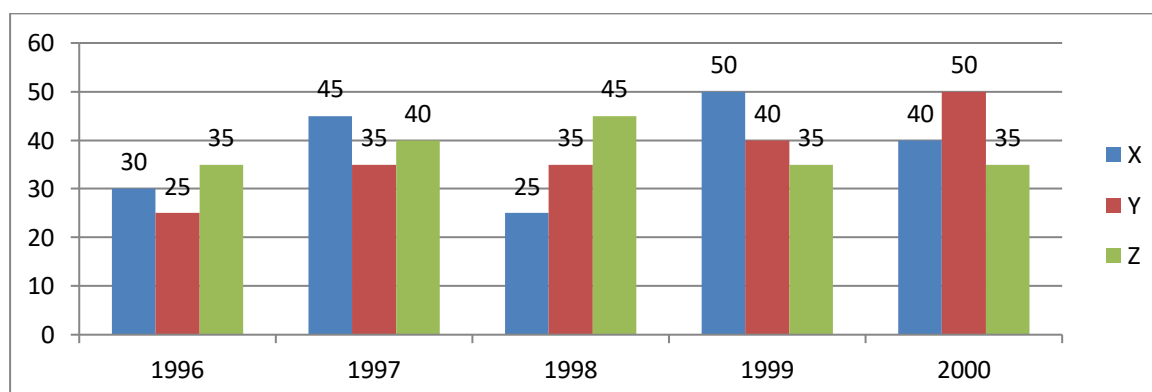
Ans: D

Solution:

Required difference	= [(45 - 25) x 1,00,000] tons
	= 20,00,000 tons.

Q2. The bar graph given below gives the data of the production of papers (in lakh tones) by 3 different company X,Y & Z over the years. Study the graph & answer the questions that follow.

Production of paper by 3 companies X,Y & Z over the year. [level 2, Wirpo. TechM]



What is the ratio of the average production of company X in the period 1998-2000 to the average production of company Y in the same period?

- a) 1:1 b) 15:17 c) 23:25 d) 27:29

Ans: C

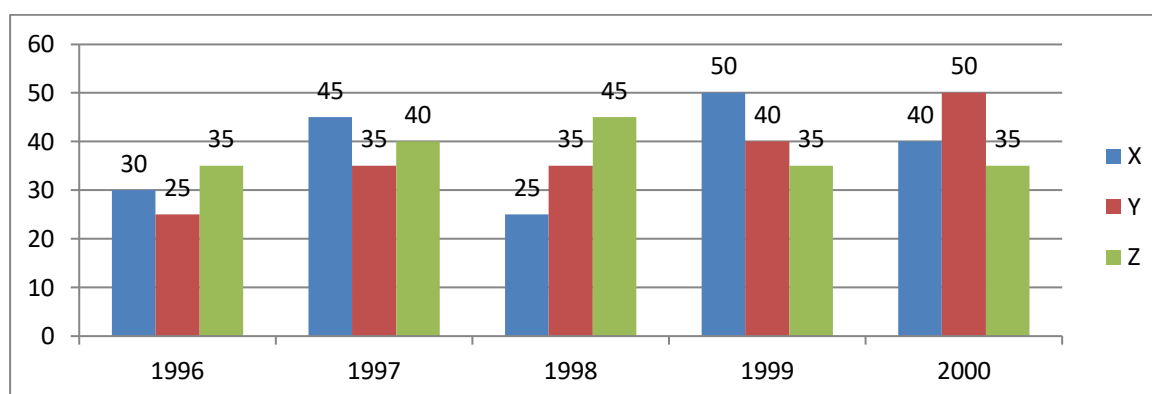
Solution:

Average production of Company X in the period 1998-2000 = $\frac{1}{3} \times (25 + 50 + 40) = \frac{115}{3}$ lakh tons

Average production of Company Y in the period 1998-2000 = $\frac{1}{3} \times (35 + 50 + 40) = 125/3$ lakh tons
 Required ratio = $115/3 : 125/3 = 23 : 25$

Q3. The bar graph given below gives the data of the production of papers (in lakh tones) by 3 different company X,Y & Z over the years. Study the graph & answer the questions that follow.

Production of paper by 3 companies X,Y & Z over the year. [level 2, Wirpo. TechM]



What is the percentage increase in the production of company y from 1996 to 1999?

- a)30% b)45% c)50% d)60% e)75%

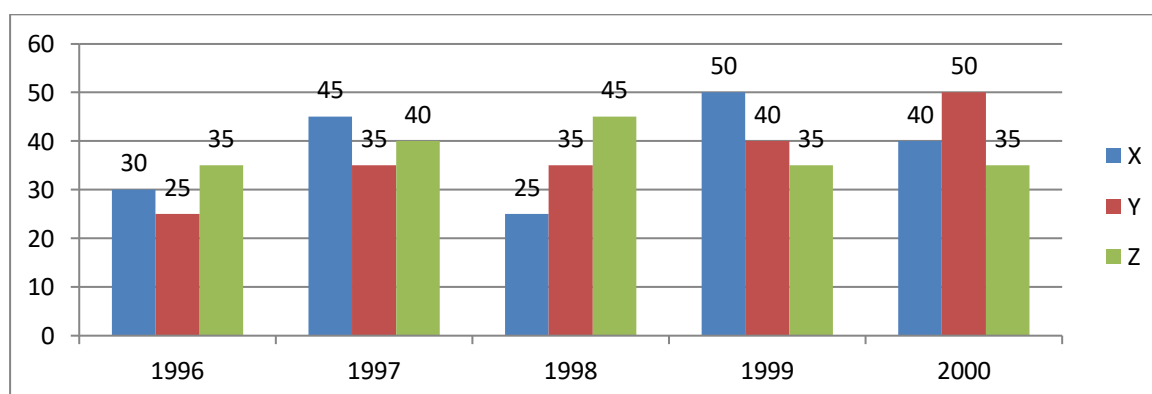
Ans: D

Solution:

Percentage increase in the production of Company Y from 1996 to 1999 = $\frac{(40 - 25)}{25} \times 100 = 60\%$

Q4. The bar graph given below gives the data of the production of papers (in lakh tones) by 3 different company X,Y & Z over the years. Study the graph & answer the questions that follow.

Production of paper by 3 companies X,Y & Z over the year. [level 2, Wirpo. TechM]



The average production for five years was maximum for which company?

- a)X b)Y c)Z d)X and Y both e)X and Z both

Ans: D

Solution:

Average production (in lakh tons) in five years for the three companies are:

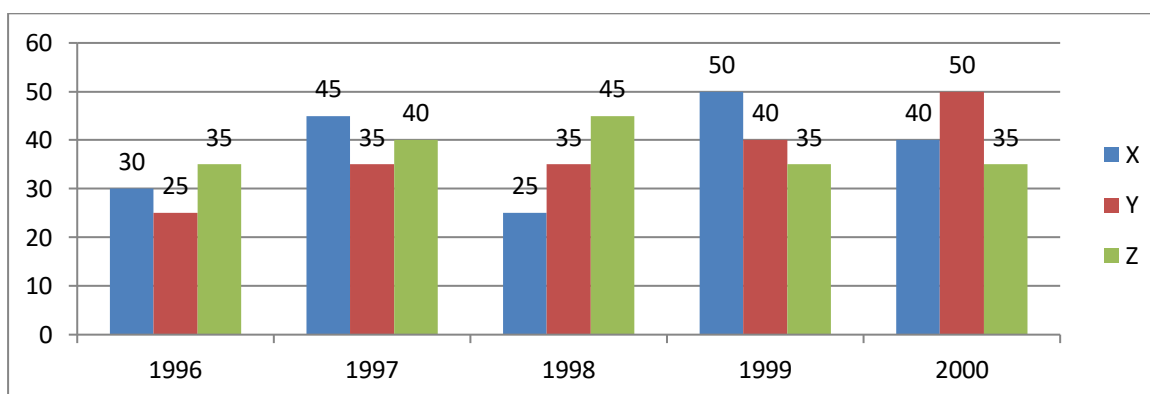
For Company X =	$\frac{1}{5} \times (30 + 45 + 25 + 50 + 40)$	=	$\frac{190}{5} = 38$
-----------------	---	---	----------------------

	$\frac{1}{5}$		$\frac{1}{5}$	
For Company Y =	$\frac{1}{5}$	$\times (25 + 35 + 35 + 40 + 50)$	$= \frac{185}{5}$	$= 37.$
For Company Z =	$\frac{1}{5}$	$\times (35 + 40 + 45 + 35 + 35)$	$= \frac{190}{5}$	$= 38.$

∴ Average production of five years is maximum for both the Companies X and Z.

Q5. The bar graph given below gives the data of the production of papers (in lakh tones) by 3 different company X,Y & Z over the years. Study the graph & answer the questions that follow.

Production of paper by 3 companies X,Y & Z over the year. [level 2, Wirpo. TechM]



For which of the following years, the percentage rise/fall in production from the previous year is the maximum for company Y?

a)1997 b)1998 c)1999 d)2000 e)1997 and 2000

Ans: A

Solution:

Percentage change (rise/fall) in the production of Company Y in comparison to the previous year, for different years are:

For 1997 =	$\frac{(35 - 25)}{25}$	$\times 100$	$\% = 40\%.$
For 1998 =	$\frac{(35 - 35)}{35}$	$\times 100$	$\% = 0\%.$
For 1999 =	$\frac{(40 - 35)}{35}$	$\times 100$	$\% = 14.29\%.$
For 2000 =	$\frac{(50 - 40)}{40}$	$\times 100$	$\% = 25\%.$

Hence, the maximum percentage rise/fall in the production of Company Y is for 1997.

Q6. The product of two consecutive prime numbers is 7387. What is the difference of the two numbers? [Level 2, Capegemini]

1) 3 2) 6 3) 2 4) 4

Ans: 2

The product of two consecutive prime numbers = 7387

86^2 is closest to 7387.

So, the prime numbers close to 86 are 83 and 89, which are consecutive.

$$7387 = 83 \times 89$$

$$\text{Difference} = 89 - 83 = 6$$

Hence, the correct answer is 6.

Q7: A house owner was having his house painted. He was advised that he would require 25kg of paint. Allowing for 15% wastage and assuming that the paint is available in 2 kg cans, what would be the cost of paint purchased, if one can cost Rs.16? [Level 2, Accenture]

- a. Rs.220 b. 240 c. 260 d. 280

Ans: b

Soln: 25 kg of paint with 15% waste would amount to:

$$\Rightarrow 25 \times (1.15) = 28.75 \text{ kgs of paint}$$

The paint is available in 2 kgs cans, so 14 cans will take care of the 28 kgs and 1 more can for the 0.75 kgs, totalling 15 cans.

The cost of paint purchased is $15 \times 16 = \text{Rs. } 240$.

Q8. A person sold his watch for Rs. 24. If the percentage of his loss was equal to the cost price, then the watch would have cost him [Level 2, Accenture]

- (a) Rs. 40
(b) Rs. 60
(c) Rs. 50
(d) Rs. 80
(e) None of these

Ans: e (Either Rs 40 or Rs 60)

$$SP = \text{Rs. } 24$$

Let CP be X hence, Loss% = X

$$(X-SP) \times 100/X = X \text{ or } (X-24) \times 100/X = X$$

$$X^2 - 100X + 2400 = 0$$

$$(X-60)(X-40) = 0$$

$$X = 60 \text{ or } 40$$

Q9. The profit earned when an article is sold for Rs 500 is 30% more than the loss incurred when it is sold for Rs 385. At what price should the article be sold if he wants to gain 20%. [Level 2, Infosys]

- (a) Rs 300 (b) Rs 500 (c) Rs 522 (d) Rs 600

Ans: (c)

Profit = 30% more than loss

$$\text{If loss} = 100x; CP = 385 + 100x$$

$$\text{then, Profit} = 130x; CP = 500 - 130x$$

$$\text{So, } 385 + 100x = 500 - 130x$$

$$\Rightarrow 115 = 230x$$

$$\Rightarrow x = 0.5$$

$$\text{So, } CP = 385 + 100 \times 0.5 = \text{Rs } 435$$

$$\text{Selling Price to get profit of } 20\% = 6 \times 435/5 = \text{Rs } 522$$

Q10: If `1100 is obtained after lending out `x at 5% per annum for 2 years and `1800 is obtained after lending out `y at 10% per annum for 2 years, find x + y. [Level 2, Accenture]

- A. Rs. 2500 B. Rs 3000 C. Rs. 2000 D. Rs 2200

Ans: A

$$1100 - x = x \cdot 2 \cdot 5 / 100$$

$$1800 - y = y \cdot 2 \cdot 10 / 100$$

On solving, $x + y = 2500$

Q11. The downstream speed of a boat is 25 km/hr and the speed of a stream is 3 km/hr. What will be the total time taken by the boat to cover 100 km downstream and 57 km upstream?
[Level 2, Wipro]

- 1) 10 hours 2) 7 hours 3) 10.5 hours 4) 8 hours

Ans: 2

Use the formulas:

Upstream speed = Downstream speed – (2 × speed of the stream)

Downstream speed of a boat = 25 km/hr

Distance travelled downstream = 100 km

Time taken to travel downstream = 4 hours

Speed of a stream = 3 km/hr

The upstream speed of the boat = $25 - (2 \times 3) = 19$ km/hr

Distance travelled upstream = 57 km

Time taken to travel upstream = 3 hours

Total time taken = $4 + 3 = 7$ hours

Q12. In what ratio must water be mixed with milk to gain 20% by selling the mixture at cost price?
[Level 2, Wipro]

- A. 5:1 B. 5:2 C. 1:5 D. 2:5

Ans: C

Solution:

To get the profit of 20%, 20% water must be added. So, the ratio will be 1: 5.

Q13. Two workers A and B working together completed a job in 5 days. If A worked twice as efficiently as he actually did and B worked $\frac{1}{3}$ as efficiently as he actually did, the work would have been completed in 3 days. A alone could complete the work in? [Level 2, TCS]

- A. $\frac{21}{4}$ B. $\frac{25}{4}$ C. $\frac{15}{2}$ D. NOT

Ans: B

Solution:

$$\frac{1}{A} + \frac{1}{B} = \frac{1}{5}$$

$$\text{Also, } \frac{2}{A} + \frac{1}{3B} = \frac{1}{3}$$

On solving, we get

$$A = \frac{25}{4} \text{ days}$$

Q14. When a man travels same distances with speeds X km/hr & Y km/hr, his average speed is 4 km/hr. But when he travels with these speeds for equal time, his average speed becomes 4.5 km/hr. Find the difference between both the speeds? [Level 2, TCS]

- A. 5km/hr B. 3km/hr C. 6km/hr D. 7km/hr E. NOT

Ans: B

Solution:

According to first condition, $4 = \frac{2XY}{(X+Y)}$

According to second condition, $4.5 = \frac{(X+Y)}{2}$

On solving both equations, we get $X = 6$, $Y = 3$

Q15. The average of runs of a cricket player of 10 innings was 32. How many runs must he make in his next innings so as to increase his average of runs by 4? [level 2, Accenture]

A. 2 B. 4 C. 70 D. 76

Ans: D

Solution:

Average after 11 innings = 36

Therefore required number of runs = $(36 \times 11) - (32 \times 10) = 396 - 320 = 76$.