

## DATA INTERPRETATION

### Type-3 Line Graph

(1-5) :

1. 1;

Mumbai	Calcutta	Chennai	Bangalore	Kanpur
108	91	83	81	84

2. 3; Required percentage =  $\frac{10}{81} \times 100 \approx 12\%$

3. 3; Required average =  $\frac{1}{6}(86+108+92+78+80+70) = 85.6$

4. 1; Required percentage  
 $= \frac{143-110}{143} \times 100 = \frac{33}{143} \times 100 \approx 23\%$

5. 3;

Hyderabad	Kanpur	Calcutta	Bangalore	Chennai
185	142	196	156	147

(6-10) :

6. 1; Percentage increase in the profit

$$= \frac{(20-13)}{13} \times 100 = \frac{7}{13} \times 100$$

Percentage increase in the

$$\text{expenditure} = \frac{10-5}{5} \times 100 = \frac{5}{5} \times 100$$

$$\therefore \text{Required percentage} = \frac{7 \times 5}{5 \times 13} = 7 : 13$$

7. 3; Income of company in 1996 =  $8 \times \frac{110}{100} = 8.80$  cr

8. 5; Income of company in different years (In Rs. cr)

1995	1996	1997	1998	1999
5.65	8.80	4.32	8.625	12

9. 3; Required percentage increase

$$= \frac{12-8.80}{8.80} \times 100 \approx 35\%$$

10. 2; Ratio between percentage profit and expenditure

1995	1996	1997	1998	1999
2.6	1.25	2	2	2

(11-15) :

11. 3; The maximum number of viewers in prime time was on Friday (6100 thousand).

12. 1; Percentage of SP viewers on different days:

**Day**                      **Percentage**

$$\text{Sunday} \Rightarrow \frac{2200}{2200+200+1600} \times 100 = 37.93\%$$

$$\text{Monday} \Rightarrow \frac{1850}{1850+1600+1350} \times 100 = 38.46\%$$

$$\text{Thuesday} \Rightarrow \frac{2400}{2400+1800+1700} \times 100 = 40.68\%$$

$$\text{Wednesday} \Rightarrow \frac{1500}{1500+2000+1000} \times 100 = 33.33\%$$

$$\text{Thuesday} \Rightarrow \frac{2500}{2500+2600+900} \times 100 = 41.66\%$$

$$\text{Friday} \Rightarrow \frac{1800}{1800+2900+1400} \times 100 = 29.50\%$$

$$\text{Saturday} \Rightarrow \frac{2300}{2300+1900+1400} \times 100 = 41.07\%$$

Clearly, the required number of days = 3 (Tuesday, Thuesday and Saturday).

13. 1; Required percent

$$= \frac{(1600+2900)-(2600+1400)}{1600+2900} \times 100$$

$$= \frac{500}{4500} \times 100 = \frac{100}{9} = 11\frac{1}{9}\%$$

14. 2; Without calculating, we can say the answer is

Thuesday, because of the maximum gap between them.

15. 5; 100 thousand on Thuesday. Hence, our answer is (5).

(16-21) :

16. 1; Graph is giving the ratio of E/I. Take the value of E/I for company A in 1996.

$$\text{ie, } \frac{E}{I} = 0.20 = \frac{20}{100}$$

From here, amount of profit =  $100 - 20 = 80$

$$\% \text{ profit} = \frac{80}{20} \times 100 = 400.$$

Now, take another year 2001

$$\text{ie, } \frac{E}{I} = 1.10 = \frac{110}{100}, \text{ amount of loss} = 10.$$

$$\% \text{ loss} = \frac{10}{110} \times 100 = 9.09\%$$

Now, We conclude from the above that whenever the

ratio of  $\frac{E}{I}$  is the least % profit will be the maximum.

Therefore, our answer is 1996 for company A.

17. 1; Income of company B in 1998 and 2002 together =

$$(121 \div 1.10) = \text{Rs. } 110 \text{ lakhs}$$

**Note :** Here, if the ratios of B in 1998 and 2002 were different, then our answer would be Data Inadequate.

18. 5; Neither-gain-nor-loss possibility is the year when the ratio of expenditure to income is equal to one. Therefore, 1999 is the correct choice.

19. 2; For this question, the income is same over the years for both the companies, therefore, the maximum difference of the ratios of expenditure to income will also be the maximum difference of the expenditures.

20. 3; Percentage profit of company B in 1997

$$= \frac{70}{30} \times 100 = 233.33\%$$

Percentage profit of company B in 2001

$$= \frac{30}{70} \times 100 = 42.85\%$$

Required % decrease

$$= \frac{233.33 - 42.85}{233.33} \times 100 \approx 80\%$$

21. 4; The year which shows the ratio of expenditure to income as 0.50, registered 100% profit.

**Question 22-26:**

22. 1; Number of students in 1994  
 $= 1500 + (300 - 250) + (250 - 350)$   
 $= 1500 + 50 - 100 = 1450$

Number of students in 1995

$$= 1450 + (500 - 400) = 1550$$

$$\therefore \text{Required increase} = 1500 - 1400 = 100$$

23. 4; From the graph's inclination, it is clear that the percentage rise/fall is maximum in the year 1997 with respect to previous year.
24. 4; Number of students in 1996  
 $= 1550 + (450 - 300) = 1700$

25. 5; Strength of the school in different years

1993	1994	1995	1996	1997	1998
1550	1450	1550	1700	1600	1650

26. 2; Required % =  $\frac{1700}{1450} \times 100 \approx 117\%$

**(27-31) :**

27. 4; There is no relationship between the revenue expenditure in 1997-98 and 1996-97. So the total revenue expenditure in 1996-97 can't be determined.
28. 5; Without knowing the total expenditure for the two financial years, we can't find out the answer.
29. 1; Required revenue different between others and defence =  $(20 - 14)\%$  of 302537 = 18152.22 crore
30. 3; Required percentage =  $\frac{16}{36} \times 100 = 44.45\%$
31. 2; Total revenue expenditure on grants to state and Uts  
 $= \frac{47781}{15} \times 18.6 \approx 59250$  crore

Hindi = 50

$$\therefore \text{Required \%} = \frac{125 - 50}{50} \times 100 = 150\%$$