

DATA INTERPRETATION

3. LINE GRAPH

Directions 1-5 :

1. (a) Both the lines in the graph intersect at 10:30 am

2. (b) average speed = $\frac{120}{\frac{5}{2}} = 48$ km/h

3. (c) time = 11:30-9:00 = $2\frac{1}{2}$ hours

4. (d) 80, it clear from the graph

5. (b) difference between temperature

Sunday = 39-23=16°

Saturday = 42.5-24=18.5° (maximum)

Wednesday = 32.5-15=17.5°

6. (a) $\frac{\text{Exports}}{\text{imports}} = 1.75 = \frac{175}{100} = \frac{7}{4}$

After 40% increase imports

imports = $4 \times \frac{140}{100} = \frac{560}{100} = \frac{56}{10}$

$\frac{\text{Exports}}{\text{Imports}} = \frac{7 \times 10}{56} = \frac{70}{56} = \frac{5}{4} = 1.25$

7. (b) In the year 2005

Imports of company x=Rs. 180 crores

Exports = 1.75×180=Rs. 315 crores

Exports of company y=Rs. 157.5 crores

Imports of company y = 157.5/0.75=210 crores

8. 1; Number of students in 1994

$$= 1500 + (300 - 250) + (250 - 350)$$

$$= 1500 + 50 - 100 = 1450$$

Number of students in 1995

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

∴ Required increase = 1500 - 1400 = 100

9. 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.

10. 4; Number of students in 1996

$$= 1550 + (450 - 300) = 1700$$

11. 4; Strength of the school in different years

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

12. 2; Required % = $\frac{1700}{1450} \times 100 \approx 117\%$

(13-17) :

13. 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.

14. 4; Without knowing the total expenditure for the two financial years, we can't find out the answer.

15. 1; Required revenue different between others and defence = (20 - 14)% of 302537 = 18152.22 crore

16. 3; Required percentage = $\frac{16}{36} \times 100 = 44.45\%$

17. 2; Total revenue expenditure on grants to state and Uts

$$= \frac{47781}{15} \times 18.6 \approx 59250 \text{ crore}$$

(18-22) :

18. 2; ∴ Profit = Income - Expenditure

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

Clearly, profit of the company will depend on the value of the (% Profit × Expenditure). Greater the value of this greater the amount of profit. By visual inspection of the graph we can see that the maximum amount of profit is in the year 2001.

19. 1; Income of the company in different years is as given below:

$$1996 = 80.50, 1997 = 108.90, 1998 = 175.50, 1999 = 150, 2000 = 210 \text{ and } 2001 = 279$$

∴ Required average

$$= \frac{80.50 + 108.90 + 175.50 + 150 + 210 + 279}{6} \approx \text{Rs. } 170 \text{ lakhs.}$$

20. 2; The maximum difference in the % profit the company for any two consecutive years is 15 and the minimum base is 21. Hence, our answer is 1998.

21. 4; Income of company in 2000 = $150 \left(\frac{140}{100} \right) = 210$

22. 1' Income in 1998 = 140% of 130 = Rs. 182 lakhs.

Question 23-27:

23.B

Imports of the company A will be more than export when the value of the ratio of import to export is more than 1.

Such years are 2001, 2003, 2004 and 2005.

Therefore, number of years = 4

24.A

Exports of the company B will be more than import when the value of the ratio of export to import is less than 1.

Such year is 1998.

25.C

In the year 1999,

$$\text{import}_{99} : \text{export}_{99} = 0.8$$

$$\text{i.e. } \text{import}_{99} : \text{export}_{99} = 4 : 5$$

If there is x between the ratio, then import

$$= 4x \text{ and } \text{export}_{99} = 5x$$

In the year 2000,

$$\text{import}_{00} : \text{export}_{00} = 0.8$$

$$\text{i.e. } \text{import}_{00} : \text{export}_{00} = 4 : 5$$

then $\text{import}_{00} = 4y$ and $\text{export} = 5y$

Since, total export = ₹ 72 crore

$$\text{export}_{99} + \text{export}_{00} = 5x + 5y = 5(x+y)$$

$$\text{Now, } 5(x+y) = 72$$

$$(x+y) = \frac{72}{5}$$

Now, total import = $\text{import}_{99} + \text{import}_{00}$

$$= 4x + 4y$$

$$= 4(x+y)$$

$$= 4 \times \frac{72}{5}$$

$$= ₹ 57.6 \text{ crore}$$

26.B

The exports of company B with relation to imports were maximum in the year 2004.

27.E

Ratio of export to import in the year 2003 is 1.3.

$$\text{Therefore, } \frac{\text{Import}}{\text{Export}} = \frac{13}{10}$$