



# Data Interpretation

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**SOLUTIONS**

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# Data Table

## PRACTICE TEST – I

Q.(1 to 5)

City \ Movie	A	B	C	D	E	Total
Mumbai	20	15	36	35	18	114
Delhi	17	19	21	25	28	110
Kolkata	32	24	19	21	17	113
Chennai	18	21	32	28	34	133
Hyderabad	16	34	26	29	22	127
Lucknow	15	27	20	35	26	123
Total	118	140	153	164	145	

Q.1. (e) Total number of tickets of movie B sold in all city.

$$15 + 19 + 24 + 21 + 34 + 27 = 140$$

Number of tickets of movie B sold in Hyderabad = 34

$$\text{Required Percentage} = \frac{34}{140} \times 100 = 24.28$$

Q.2. (e) Number of tickets of Movie D in Kolkata = 21000

Number of tickets of Movie B in Lucknow = 27000

Required Difference = 27000 – 21000 = 6000

Q.3. (d) Average number of tickets of movie C in all cities.

$$= \frac{35 + 21 + 19 + 32 + 26 + 20}{6} = 25.500$$

Q.4. (a) Number of tickets of movie E sold in Chennai = 34

Number of tickets of movie A sold in Mumbai = 20

$$\text{Required \%} = \frac{34}{20} \times 100 = 170$$

Q.5. (a) Total number of tickets sold of all movie in

In Mumbai = 114

In Delhi = 110

In Kolkata = 113

In Chennai = 133

In Hyderabad = 127

In Lucknow = 123

Tickets sold minimum in Delhi city.

Q.(6 to 10)

Month	Factory					Total
	A	B	C	D	E	
January	65	41.2	72.4	63.5	83	325.1
February	78	30	61	60	74	303
March	42	65	71.6	76	70.3	324.9
April	51	72.8	83.5	21.8	66	295.1
May	60	68.2	61.2	80.2	56.9	326.5
June	63.5	52.5	73.2	57	44.7	290.9
Total	359.5	329.7	422.9	358.5	394.9	

**Q.6.(a)** Total number of worker in every month in factory

$$A = 65 + 78 + 42 + 51 + 60 + 63.5 = 359.5$$

Total number of worker in every month in factory

$$E = 83 + 74 + 70.3 + 66 + 56.9 + 44.7 = 394.9$$

Required Difference =  $394.9 - 359.5$

$$= 35.4 \approx 3540.$$

**Q.7.(d)** Ratio of total number of worker of given factories in the month of March.

*i.e.*  $B + C : A + D$

$$6500 + 7160 : 4200 + 7600$$

$$13660 : 11800$$

*i.e.*  $683 : 590$

**Q.8. (e)** Average of number of worker in January

$$\frac{65 + 41.2 + 72.4 + 63.4 + 83}{5} = 65.02$$

Average number of worker in April.

$$\frac{51 + 72.8 + 83.5 + 21.8 + 66}{5} = 59.02$$

Required average =  $65.02 + 59.02 = 124.04$

*i.e.*  $12404$

**Q.9.(e)** Average number of worker in various month in factory C

$$\frac{72.4 + 61 + 71.6 + 83.5 + 61.2 + 73.2}{6}$$

$$= \frac{422.6}{6} = 70.48$$

**Q.10. (e)** Total number of worker in factor B

$$41.2 + 30 + 65 + 72.8 + 68.2 + 52.5 = 329.7$$

Total number of worker in factor D

$$63.5 + 60 + 76 + 21.8 + 80.2 + 57 = 358.5$$

$$\text{Required \%} = \frac{329.7}{358.5} \times 100 = 91.96 \approx 92$$

Q.(11 to 15)

Sub-ject →	History	Geography	Maths	Science	English	Hindi	Total
Stud-ents ↓	Marks ↓						
A	$75 \times \frac{82}{100} = 61.50$	$75 \times \frac{66}{100} = 49.50$	$100 \times \frac{59}{100} = 59$	$150 \times \frac{76}{100} = 114$	$50 \times \frac{62}{100} = 31$	$60 \times \frac{65}{100} = 39$	354
B	$75 \times \frac{76}{100} = 57$	$75 \times \frac{72}{100} = 54$	$100 \times \frac{65}{100} = 65$	$150 \times \frac{84}{100} = 126$	$50 \times \frac{74}{100} = 37$	$60 \times \frac{75}{100} = 45$	384
C	$75 \times \frac{56}{100} = 42$	$75 \times \frac{78}{100} = 58.50$	$100 \times \frac{71}{100} = 71$	$150 \times \frac{66}{100} = 99$	$50 \times \frac{86}{100} = 43$	$60 \times \frac{70}{100} = 42$	355.5
D	$75 \times \frac{64}{100} = 48$	$75 \times \frac{80}{100} = 60$	$100 \times \frac{68}{100} = 68$	$150 \times \frac{72}{100} = 108$	$50 \times \frac{66}{100} = 33$	$60 \times \frac{80}{100} = 49$	366
E	$75 \times \frac{48}{100} = 36$	$75 \times \frac{68}{100} = 51$	$100 \times \frac{83}{100} = 83$	$150 \times \frac{88}{100} = 132$	$50 \times \frac{56}{100} = 28$	$60 \times \frac{60}{100} = 36$	366
F	$75 \times \frac{60}{100} = 45$	$75 \times \frac{74}{100} = 55.50$	$100 \times \frac{79}{100} = 79$	$150 \times \frac{64}{100} = 96$	$50 \times \frac{80}{100} = 40$	$60 \times \frac{85}{100} = 51$	366.5
Total	289.5	328.5	425	675	212	262	

Q.11.(b) Average marks obtained by all student in science.

$$\frac{A + B + C + D + E + F}{6}$$

$$= \frac{144 + 126 + 99 + 108 + 132 + 96}{6}$$

$$= 112.5$$

Q.12.(e) Total marks obtained by B in all subjects.

$$i.e. 57 + 54 + 65 + 126 + 37 + 145 = 384$$

Q.13.(e) Marks obtained in Science by C = 99

Total marks obtained by C in all subjects.

$$i.e. 42 + 58.5 + 71 + 99 + 43 + 42 = 355.5$$

$$\text{Required \%} = \frac{99}{355.5} \times 100$$

$$= 27.8 \approx 28$$

Q.14.(a) Total marks obtained by D in given subject.

$$68 + 108 + 33 = 209$$

Total marks obtained by F in given subjects.

$$79 + 96 + 40 = 215$$

Required Ratio = 209 : 215

Q.15.(b) Average marks obtained by all students in Geography.

$$\frac{49.50 + 54 + 58.50 + 60 + 51 + 55.50}{6} = \frac{328.5}{6} = 54.75$$

**Q.(16-20)**

Year	Individual						Total
	A	B	C	D	E	F	
2002	5.50	3.20	4.80	6.35	6.15	3.50	29.5
2003	5.65	3.25	4.85	6.55	6.25	3.65	30.2
2004	5.7	3.725	4.95	7.155	6.425	3.75	31.70
2005	6.20	4.25	5.10	7.35	7.15	4.0	34.05
2006	6.50	4.50	5.20	7.40	7.25	4.25	35.1
2007	6.75	5.0	5.25	7.48	7.285	4.80	36.565
2008	7.0	5.35	5.30	8.0	7.30	5.10	38.05
Total	43.3	29.27	35.45	50.28	47.81	29.05	

- Q.16.(d)** Monthly income of A over the 7 year =  $12 \times 7 = 84$   
 Total income in 7 year = 43,3000  
 Approximate average monthly income

$$= \frac{433000}{84}$$

$$= 51547$$

- Q.17.(c)** Ratio of annual income of B to that of C in year 2005.  
 $425000 : 510000$   
 $5 : 6$

- Q.18.(c)** Total annual income of all individuals in year 2003 = 30.2  
 Total annual income of all individuals in year 2007 = 36.562  
 Required Difference =  $36.562 - 30.2 = 6.365$   
*i.e.*  $\approx 6.36500$  in lakhs.

- Q.19.(d)** Annual income of E in 2004 = 6.425  
 Average annual income over the year by

$$E = \frac{47.81}{7} = 6.83$$

$$\text{Required \%} = \frac{6.425}{6.83} \times 100 = 94.07$$

*i.e.*  $\approx 94\%$

- Q.20.(e)** Average annual income of F over the year.

$$\frac{29.05}{7} = 4.15 \text{ i.e. (4,15,000 in lakhs)}$$

### PRACTICE TEST-II

**Q.(1-4)**

Class	Number of Students	Cricket	Volley ball	Basketball	Football	Total
6	120	60% = 72	70% = 84	50% = 60	60% = 72	288
7	140	50% = 70	60% = 84	60% = 84	50% = 70	308
8	160	40% = 64	65% = 104	55% = 88	45% = 72	328
9	180	65% = 117	75% = 135	65% = 117	55% = 99	468
10	240	70% = 168	80% = 192	75% = 180	45% = 108	648
Total		491	599	529	421	

**Q.1.(c)** Number of students who like CKT in all classes  
 $72 + 70 + 64 + 117 + 168 = 491$

**Q.2.(e)** Students who like volleyball in class 6 =  $\frac{70}{100} \times 120 = 84$

Students who like Basketball in class 10 =  $\frac{75}{100} \times 120 = 180$

Required % =  $180 - 84$

$$= \frac{96}{180} \times 100$$

$$= 53.33\%$$

**Q.3.(d)** Number of students who like cricket in class 7 = 70  
 Number of students who like Football in class 8 = 72

Required % =  $\frac{70}{72} \times 100 = 97.2\%$

**Q.4.(d)** Class 9 & 10.

**Q.5.(a)** If number of people of city A which belongs to 19 – 35 = 15840

Total number of people of city A =  $\frac{24}{100} \times x = 15840 = 66000$

People are in group above 60 =  $\frac{16}{100} \times 66000 = 10560$

**Q.6.(e)** Population of city E in age group (0 – 13) = 8100

Total number of people of city E =  $\frac{18}{100} \times x = 8100 = 45000$

Population of age group (13 – 19) =  $\frac{15}{100} \times 45000 = 6750$

Required % =  $\frac{8100}{6750} \times 100 = 120\%$

**Q.7.(b)** Population of city C

in age group above 60 =  $\frac{15}{100} \times x = 12000$ ,

$$x = \frac{12000 \times 100}{15} = 80,000$$

Sum of total population C + D =  $80000 + 60000 = 1,40,000$  **Ans.**

Population of city D

in age group above 60 =  $\frac{20}{100} \times x = 12000$

$$x = \frac{12000 \times 100}{20} = 60,000$$

**Q.8.(b)**  $\frac{24}{100} \times x = 8640$  :  $\frac{22}{100} \times x = 10,560$

36000 : 48000  
 3 : 4 **Ans.**

**Q.9.(e)** Population of city E in age group (0 – 13) years =  $\frac{18}{100} \times 65000 = 11700$

Population of city B in age group (0 – 13) years =  $\frac{16}{100} \times 48000 = 7680$

Required % =  $11700 - 7680$

$$= \frac{4020}{11700} \times 100 = 34.35\%$$

**PRACTICE TEST – III**

(1-5) :

	Male	Female	Total	Children	Male Children	Female Children
A	250	350	600	150	60	90
B	400	150	550	220	165	55
C	300	275	575	92	23	69
D	280	300	580	145	116	29
E	180	250	430	172	86	86
F	325	300	625	150	69	81
Total	1735	1625	3360	929	519	410

- 1.
- 2; Reqd average =  $519 \div 6 = 86.5$
- 3; B
- 4
- 5; Reqd difference =  $69 - 23 = 46$

(6-13) :

- 4; Reqd % =  $\frac{(165 - 150)}{150} \times 100 = \frac{15}{150} \times 100 = 10\%$
- 5; Reqd difference =  $(90 + 115 + 90 + 105 + 96 + 75 + 105 + 95) - (75 + 126 + 144) = 771 - 345 = 426$  thousand = 4260000
- 4; Total no. of 4 AH batteries sold in all the years together = 771 thousand  
Similarly, 7 AH batteries = 736 thousand  
32 AH batteries = 996 thousand => So 32 AH batteries is highest.  
35 AH batteries = 671 thousand  
55 AH batteries = 910 thousand
- 2; From the table it is clear that the sales of 35 AH batteries have been decreasing continuously from 2011 to 2014.
- 4; The percentage of 4 AH batteries sold compared to the total no. of batteries in that year  
for 2007 =  $\frac{90}{435} \times 100 = 20.68\%$       for 2008 =  $\frac{115}{545} \times 100 = 21.10\%$   
for 2009 =  $\frac{90}{528} \times 100 = 17.04\%$       for 2010 =  $\frac{105}{495} \times 100 = 21.21\%$   
for 2011 =  $\frac{96}{525} \times 100 = 18.28\%$       for 2012 =  $\frac{75}{543} \times 100 = 13.81\%$   
for 2013 =  $\frac{105}{510} \times 100 = 20.59\%$       for 2013 =  $\frac{95}{503} \times 100 = 18.88\%$   
Clearly, the percentage sale is maximum in 2010.
- 5; Reqd ratio =  $\frac{\text{Total sales of 55 AH batteries}}{\text{Total sales of 32 AH batteries}} = \frac{910}{996} = \frac{455}{498} = 455 : 498$
- 2; Total sales of 4 AH batteries = 771  
Total sales of all batteries in eight years = 4084  
 $\therefore$  Reqd % =  $\frac{771}{4084} \times 100 = 18.87\%$
- Cost price = rs.2250  
Selling Price = rs.2750  
 $\therefore$  Profit % =  $\frac{500}{2250} \times 100 = 22.22\%$
- 4; Total number of employees in Company B at the end of 2003 =  $148 + 172 - 60 + 188 - 96 = 352$