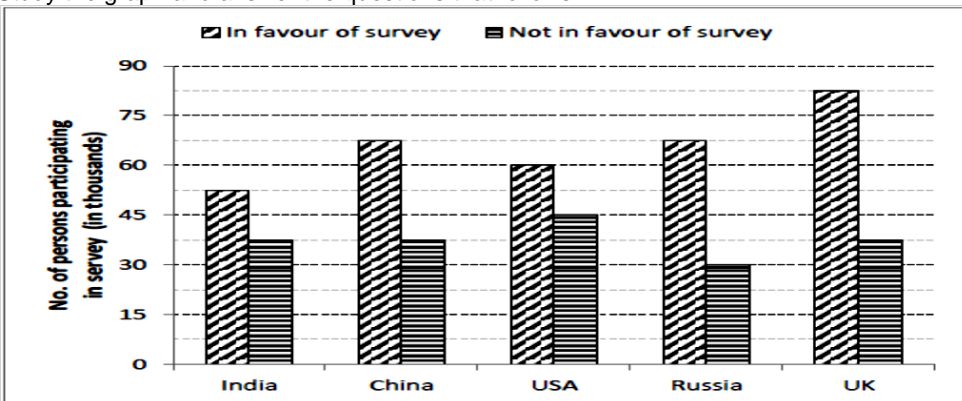


DI Test 7

Directions (1-5): The following bar graph shows the total number of persons participating in a survey from 5 different countries in year 2016. Study the graph and answer the questions that follows :



- What is the average number of persons who are in favour of survey ?
(a) 66,000 (b) 64,000 (c) 62,500 (d) 68,450 (e) None of these
- From which country, maximum number of persons have participated in survey ?
(a) India (b) UK (c) Russia (d) China (e) USA
- The number of persons in favour of survey from India are what percent of number of persons in favour of survey from USA ?
(a) 92% (b) 95% (c) 87.5% (d) 82.5% (e) 88.25%
- The number of persons not in favour of survey from China are approximately what per cent more or less than the number of persons not in favour of survey from Russia ?
(a) 20% less (b) 20% more (c) 25% less (d) 25% more (e) 30% more
- What is the ratio of number of persons in favour of survey from India and Russia together to the number of persons in favour of survey from China and UK together ?
(a) 4 : 5 (b) 5 : 4 (c) 3 : 5 (d) 5 : 3 (e) None of these

(6 - 10) Directions : Study the following chart carefully and answer the questions given beside. The table given below shows the about number of Geyser of three different brands sold in four different years.

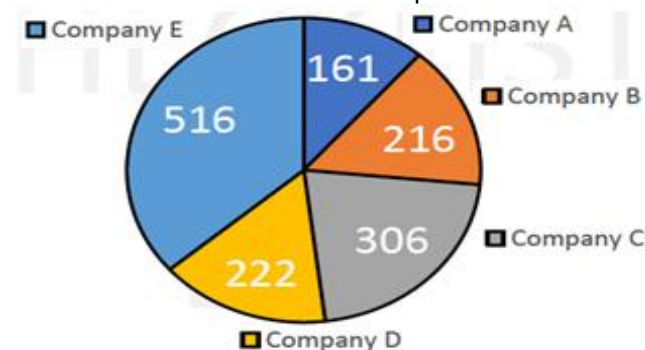
Year	Usha	Havells : Usha	Orient : Usha
2016	1800	7 : 6	4 : 3
2017	2400	13 : 12	5 : 4
2018	2800	9 : 7	8 : 7
2019	3000	13 : 10	7 : 6

- Number of geysers sold by Orient in 2016 is what percent of total number of geysers sold by Havells in all four years together?
(A) 19.67% (B) 32.84% (C) 29.22% (D) 43.56% (E) None of these
- What is the ratio between number of geysers sold by Havells in 2018 to number of geysers sold by Orient in 2016?

- (A) 5 : 3 (B) 7 : 5 (C) 8 : 1 (D) 3 : 2 (E) None of these
- Find the average number of geysers sold by Orient in all four years.
(A) 3155 (B) 3025 (C) 3365 (D) 3225 (E) None of these

- Out of total number of geysers sold in 2016 and 2018, 47% and 40% are sold to wholesalers and rest are sold to retailers. Find the difference between number of geysers sold to retailers in 2016 and 2018 together by all three companies.
(A) 2789 (B) 2566 (C) 2421 (D) 2648 (E) None of these
- Number of geysers sold by Havells and Orient in 2020 is respectively 13% and 9% more than previous year, then find the difference between number of Havells and number of Orient geysers sold in 2019.
(A) 386 (B) 448 (C) 592 (D) 232 (E) None of these

Directions (11-15): The given pie chart shows the actual number of total chairs and tables purchased by store from five different companies and the given table shows the ratio of number of chairs and tables purchased by a store from five companies. Total number of chairs and tables purchased

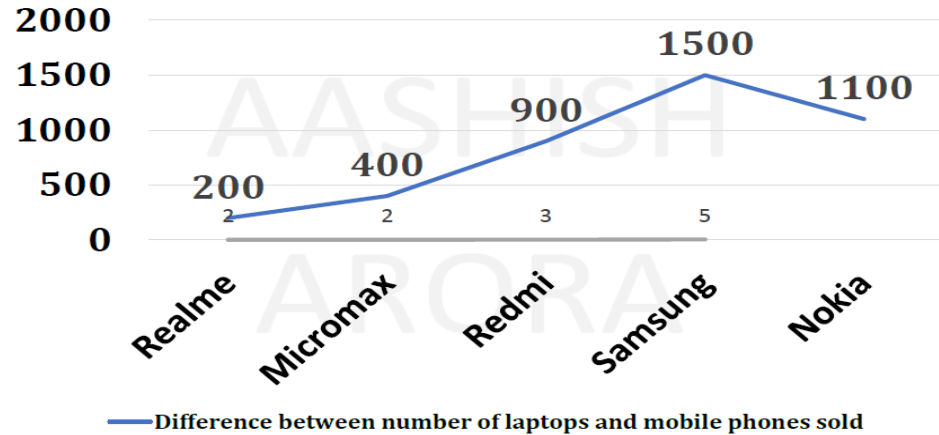


Company	Chair : Table
A	14 : 9
B	5 : 3
C	11 : 6
D	21 : 16
E	7 : 5

- Find the average number of chairs purchased from Company A and Company D.
A. 16 B. 18 C. 96 D. 112 E. None of the above
- The number of tables purchased from Company C is how much percent more/less than the number of chairs purchased from Company D?
A. 16.66% B. 14.28% C. 22.22% D. 33.33% E. None of the above
- Find the ratio of number of tables purchased from Company B to that of the chairs purchased from Company C.
A. 9 : 22 B. 22 : 9 C. 13 : 9 D. 14 : 1 E. None of the above
- The total number of tables purchased from Company A and Company D is approximately what percent of the total number of chairs purchased from Company B, Company C and Company E?
A. 23% B. 24% C. 25% D. 30% E. None of the above
- If the cost price of a chair and table purchased from Company E are Rs 4200 and Rs 9200 respectively. Find the total price paid to Company E.
A. Rs 32,00,000 B. Rs 33,18,000 C. Rs 25,48,785 D. Rs 32,42,200 E. None

Directions (16-20): Table given below shows percentage of mobile phones of five different companies sold and the line graph shows the difference between number of laptops and mobile phones sold.

Companies	Percentage of mobile phone sold
Realme	52%
Micromax	45%
Redmi	25%
Samsung	41.66%
Nokia	60%



16. Total number of laptops sold is what percent more/less than total number of mobile phones sold?

A. 12.6% B. 11.11% C. 33.33% D. 15.6% E. None of the above

17. Find the average number of laptops of Redmi sold and mobile phones of Samsung sold.

A. 1850 B. 2550 C. 3750 D. 3500 E. None of the above

18. Find the difference between total number of laptops of Redmi and mobiles phones of Samsung together and total number of mobile phones of Realme and Micromax together.

A. 650 B. 700 C. 800 D. 900 E. None of the above

19. If the number of laptops of another company Z is 25% laptops of Nokia sold and the number of mobiles of company Z is 30% of the number of mobile phones of Redmi sold. Find the difference between number of laptops and mobile phones of company Z sold.

A. 400 B. 500 C. 300 D. 415 E. None of the above

20. What is the ratio of the number of laptops of Samsung sold and total number of laptops and mobile phones of Micromax sold?

A. 21 : 16 B. 16 : 21 C. 15 : 17 D. 17 : 21 E. None of the above

Directions [21 – 25]: Answer the questions based on the information given below.

Three friends, Arun, Bhavin and Charan, decided to launch a small business making and selling homemade herbal oil. Arun invested Rs. 2,000 and Bhavin invested Rs. 1,200 at the beginning. Four months later, Charan joined the business with an investment of Rs. 1,800. The oil was prepared by mixing neem oil and coconut oil in the ratio 3:2. The cost

of each litre of neem oil and coconut oil is Rs. 80 per litre and Rs. 60 per litre respectively. After one year from the start of the business, they produced 600 litres of herbal oil, and during quality testing, 20% of the oil was found to be substandard and discarded. The remaining oil was sold at Rs. 200 per litre.

21. Find the total revenue generated from selling the herbal oil.

A Rs. 72000 B Rs. 90000 C Rs. 108000 D Rs. 84000 E Rs. 96000

22. Find the profit share ratio of Arun, Bhavin and Charan respectively.

A 7:4:7 B 4:4:3 C 5:3:3 D 33:20:20 E 10:7:7

23. Find the cost price of each litre of usable herbal oil (quantity of oil remaining after substandard oil is discarded).

A Rs. 100 B Rs. 90 C Rs. 80 D Rs. 96 E Rs. 72

24. Find the difference between the profit share of Arun and Charan.

A Rs. 8800 B Rs. 9600 C Rs. 9200 D Rs. 9000 E Rs. 8400

25. If Bhavin had invested his profit share in a scheme offering 10% compound interest per annum, Find the amount he would receive after 2 year.

A Rs. 18,476 B Rs. 17,532 C Rs. 17,424 D Rs. 16,524 E Rs. 17,648

Directions (26 – 30): Refer to the table given below and answer the given questions. Data related to the number of employees in 5 different companies in December 2008.

Company	Total number of employees	Out of total number of employees		
		Percentage of Arts graduates	Percentage of Science graduates	Percentage of commerce graduates
X	---	30%	30%	---
Y	---	---	40%	20%
Z	---	35%	50%	---
K	1000	32%	---	---
L	600	---	42%	30%

26. What is the difference between the number of commerce graduates employees and Arts graduates employees in company L?

(a) 12 (b) 18 (c) 10 (d) 22 (e) 15

27. The average number of commerce graduates employees and science graduate employees in company Z was 338. What was the total number of employees in company Z?

(a) 1020 (b) 1140 (c) 1040 (d) 1240 (e) 940

28. If the respective ratio between the number of science graduate and commerce graduate employees in company K was 10 : 7. What was the number of commerce graduate employees in K?

(a) 180 (b) 280 (c) 380 (d) 80 (e) 250

29. Total number of employees in company L increased by 20% from December 2008 to December 2009. If 20% of the total number of employees in company L in December 2009 was Arts graduate, what was the number of Arts graduate employees in company L in December 2009?

(a) 144 (b) 169 (c) 244 (d) 104 (e) 124

30. Total number of employees in company X was three time the total number of employees in company Y. If the difference between number of commerce graduate employees in company Y and that of science graduate employees in same company was 120, what was the total number of employees in company X?

(a) 600d (b) 1200 (c) 1800 (d) 3000 (e) 2400

{1 - 5}

1

1. Ans.(a)

Exp.

Required average

$$= 1/5 \times (52.5 + 67.5 + 60 + 67.5 + 82.5)$$

$$= 1/5 \times 330$$

$$= 66 \text{ thousands}$$

2

2. Ans.(b)

Exp.

From the graph we can say that the maximum no. of persons participating in survey are from UK.

3

3. Ans.(c)

Exp.

$$\text{Required percentage} = \frac{52.5}{60} \times 100 = 87.5\%$$

4

4. Ans.(d)

Exp.

$$\text{Required percentage} = \frac{37.5 - 30}{30} \times 100 = 25\% \text{ more}$$

5

5. Ans.(a)

Exp.

$$\text{Required ratio} = \frac{52.5 + 67.5}{67.5 + 82.5} = \frac{120}{150} = 4 : 5$$

{6 - 10}

Year →	2016	2017	2018	2019	Total
Usha	1800	2400	2800	3000	10000
Havells	2100	2600	3600	3900	12200
Orient	2400	3000	3200	3500	12100
Total	6300	8000	9600	10400	34300

16. Ans. (A)

$$\text{Required \%} = 2400/12200 \times 100 = 19.67\%$$

7. Ans. (D)

$$\text{Ratio} = 3600 : 2400 = 3 : 2$$

8. Ans. (B)

$$\text{Average of Geyser sold by Orient} = 12100/4 = 3025$$

9. Ans. (C)

Geysers sold to retailers

$$\text{In 2016} = 6300 \times 0.53 = 3339$$

$$\text{In 2018} = 9600 \times 0.6 = 5760$$

$$\text{Difference} = 5760 - 3339 = 2421$$

10. Ans. (C)

$$\text{In 2020, Geyser sold by Havells} = 3900 \times 1.13 = 4407$$

$$\text{Geyser sold by Orient} = 3500 \times 1.09 = 3815$$

$$\text{Difference} = 4407 - 3815 = 592$$

{11 - 15}

$$11) \text{ Average number of chairs purchased from Company A and Company D} = (98 + 126)/2 = 112$$

$$12) \text{ Number of tables purchased from Company C} = 108$$

$$\text{Number of chairs purchased from Company D} = 126$$

$$\text{Required \%} = 1/7 = 14.28\%$$

$$13) \text{ Ratio of number of tables purchased from Company B to that of the chairs purchased from Company C} = 81 : 198 = 9 : 22$$

$$14) \text{ Total number of tables purchased from Company A and Company D} = 63 + 96 = 159$$

$$\text{Total number of chairs purchased from Company B, Company C and Company E} = 135 + 198 + 301 = 634$$

$$\text{Required \%} = (159/634) \times 100 = 25\% \text{ (Approx)}$$

$$15) \text{ Total price paid to Company E} = 301 \times 4200 + 215 \times 9200 = \text{Rs } 32,42,200$$

{16 - 20}

$$16) \text{ Total number of laptops sold} = 13400$$

$$\text{Total number of mobile phones sold} = 11900$$

$$\text{Required \%} = 12.6\%$$

$$17) \text{ Average number of laptops of Redmi sold and mobile phones of Samsung sold} = (1350 + 3750)/2 = 2550$$

$$18) \text{ Total number of laptops of Redmi and mobiles phones of Samsung together} = 1350 + 3750 = 5100$$

$$\text{Total number of mobile phones of Realme and Micromax together} = 2600 + 1800 = 4400$$

$$\text{Difference between total number of laptops of Redmi and mobiles phones of Samsung together and total number of mobile phones of Realme and Micromax together} = 5100 - 4400 = 700$$

$$19) \text{ Number of laptops of another company Z} = 25\% \text{ of } 2200 = 550$$

Number of mobiles of company Z = 30% of 450 = 135

Difference between number of laptops and mobile phones of company Z sold = 550 - 135 = 415

20) Ratio of the number of laptops of Samsung sold and total number of laptops and mobile phones of Micromax sold = 5250/4000 = 21 : 16

{21 – 25}

Solution

Profit share ratio of Arun, Bhavin and Charan = (2000 X 12) : (1200 X 12) : (1800 X 8) = 5:3:3

Total quantity of herbal oil prepared = 600 litres

Quantity of Neem oil in the herbal oil = 600 X (3/5) = 360 litres

Quantity of Coconut oil in the herbal oil = 600 X (2/5) = 240 litres

Total cost of the herbal oil prepared = 360 X 80 + 240 X 60 = 28800 + 14400 = Rs. 43200

Quantity of usable oil after substandard oil is discarded = 600 X 0.8 = 480 litres

Revenue generated from selling the usable herbal oil = 480 X 200 = Rs. 96000

Profit earned = 96000 - 43200 = Rs. 52800

Profit share of Arun = (5/11) X 52800 = Rs. 24,000

Profit share of Bhavin = (3/11) X 52800 = Rs. 14,400

Profit share of Charan = (3/11) X 52800 = Rs. 14,400

21.E

Total revenue generated from selling herbal oil = Rs. 96000

Hence, option e.

22.C

Required ratio = 5:3:3

Hence, option c.

23.B

Required cost price of usable herbal oil = (43200/480) = Rs. 90 per litre

Hence, option b.

24.B

Required difference = 24000 - 14400 = Rs. 9600

Hence, option b.

25.C

Required amount = 14400 X (1 + 10/100) ²

= 14400 X (1.10) ²

= 14400 X 1.21

= Rs. 17,424

Hence, option c.

{26 – 30}

26

Sol. (a): Number of commerce graduates employees = 30% of 600 = $\frac{30}{100} \times 600 = 180$

Number of arts graduates employees = 28% of 600 = 168

∴ Difference = 180 - 168 = 12

27

Sol. (c): Average number of commerce graduate employees and science graduate employees in company Z = 338

Total number of commerce and science graduate employees in company Z = 676

Total number of employees in Z = $676 \times \frac{100}{65} = 1040$

28

Sol. (b): Number of Arts graduate employees = $\frac{32}{100} \times 1000 = 320$

Number of science graduate and commerce graduate employees = 1000 - 320 = 680

∴ Number of commerce graduate employees in K = $680 \times \frac{7}{17} = 280$

29

Sol. (a): Total employees in company L in 2009 = $600 \times \frac{120}{100} = 720$

Arts Graduate in company L in December 2009 = $\frac{20}{100} \times 720 = 144$

30

Sol. (c): (40% - 20%) of number of employees in company Y = 120

∴ Number of employees in company Y = 600

∴ Total number of employees in company X = 1800