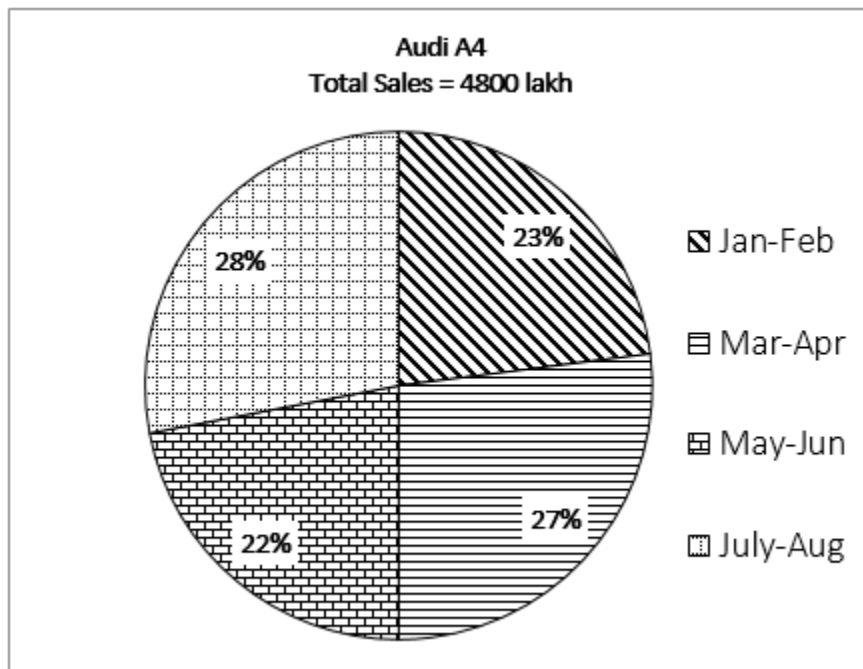
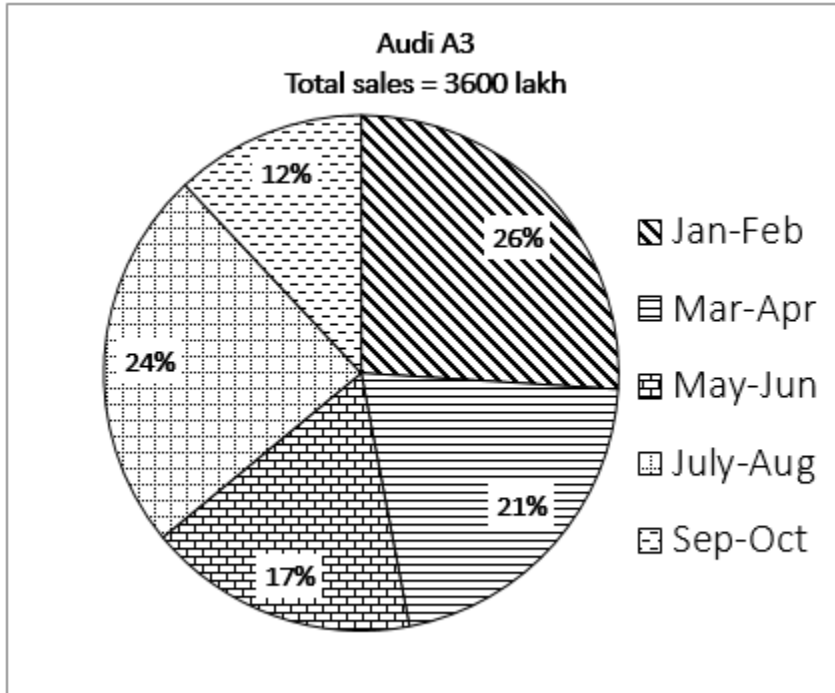


Quiz Date: 1st August 2020

Directions (1-5): Total sales of the two models of car of Audi (A3 and A4) are given on bimonthly basis. Read the following pie chart and answer the following question — Given pie charts show the percentage wise breakup of total sales in given months.



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Q1. If the total sale of Audi A4 in the given year is 5800 lakhs and the sale of the same model in Sep-Oct is $81\frac{9}{11}\%$ of the sale of the same model in Nov-Dec then find the average sale of the same model in July-Aug and Sep-Oct?

- (a) 890 lakhs
- (b) 800 lakhs
- (c) 950 lakhs
- (d) 897 lakhs
- (e) 946 lakhs

Q2. Total sale of Audi A3 in the month of Mar-Apr and Sep-Oct together are what percent more/less than the sale of Audi A3 in the month of May-Jun?

- (a) $88\frac{2}{17}\%$
- (b) 90%
- (c) $94\frac{2}{17}\%$
- (d) $87\frac{1}{2}\%$
- (e) 83%



Q3. If we include the sale of Nov- Dec in the first pie chart for Audi A3, percentage of sale for Mar-Apr will become 15% of the total sales of Audi A3 in the year. Then what is the sale (in lakh) of Audi A3 series in Nov-Dec?

- (a) 1250 lakhs
- (b) 1500 lakh
- (c) 1300 lakh
- (d) 1350 lakh
- (e) 1440 lakh

Q4. Average of sale (in lakh) for Audi A4 in the month of Jan-Feb and May-June together is what % of the total sale of Audi A3 in the month of July-Aug?

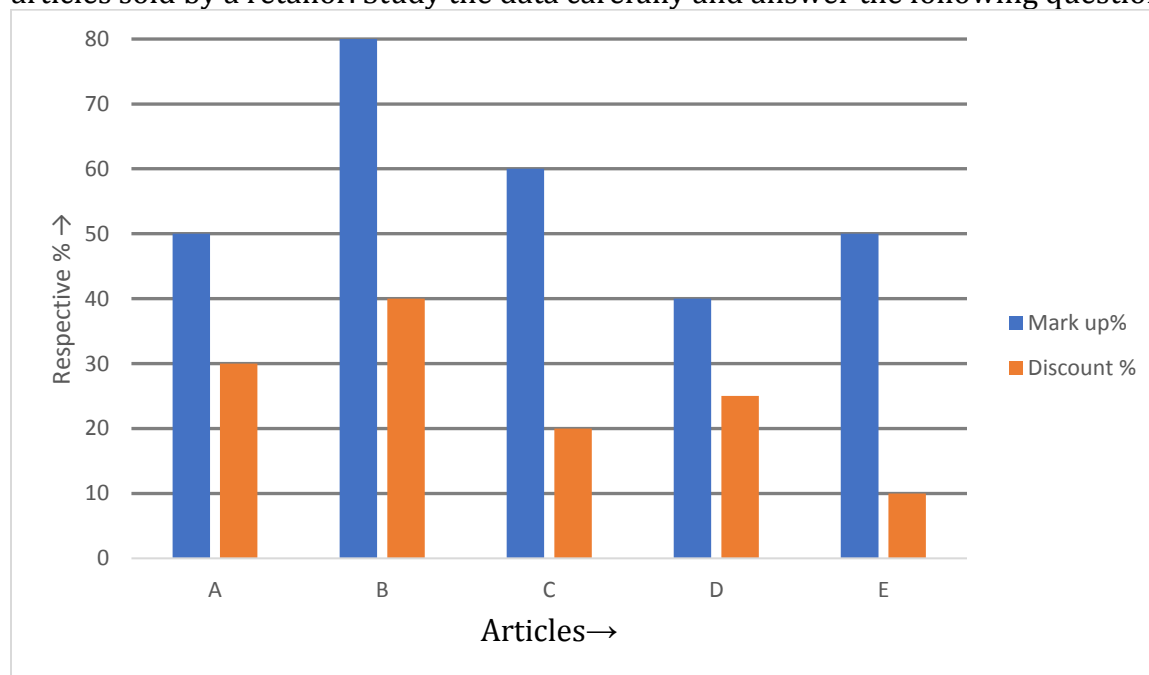
- (a) 125%
- (b) 120%
- (c) 115%
- (d) 130%

(e) 96%

Q5. If the total sale of Audi A3 series in the month of Nov-Dec is 180 lakhs more than the total sale of Audi A4 in the month of Jul-Aug. Then find the total sale (in lakh) of Audi A3 series in the given year?

- (a) 5130 lakhs
- (b) 5124 lakhs
- (c) 5200 lakhs
- (d) 5000 lakhs
- (e) 5240 lakhs

Direction (6-10): - Bar chart given below shows markup % and discount % on five different articles sold by a retailer. Study the data carefully and answer the following questions.



Q6. If ratio between selling price of article 'A' to that of article 'E' is 1 : 1, then find out the ratio between cost price of article 'A' to that of article 'E'?

- (a) 7 : 9
- (b) 9 : 7
- (c) 9 : 11
- (d) 11 : 9
- (e) 11 : 7

Q7. Cost price of article 'B' is Rs.50 more than Cost price of article 'C' while mark price of article 'B' is R. 130 more than mark price of article 'C'. Find the difference between selling price of article 'B' to that or article 'C'?

- (a) Rs. 24
- (b) Rs. 18
- (c) Rs. 8

- (d) Rs. 4
- (e) Rs. 14

Q8. If retailer earn Rs.24 profit on selling article 'D' then find the Mark price of article 'D'?

- (a) Rs.672
- (b) Rs. 504
- (c) Rs. 480
- (d) Rs. 420
- (e) Rs. 588

Q9.If ratio between selling price of article 'B' to that of article 'C' is 27 : 16 then cost price of article 'B' is what percent more than that of article 'C'?

- (a) 50%
- (b) 62.5%
- (c) 75%
- (d) 87.5%
- (e) 100%



Q10.Which article is sold at maximum profit if cost price of article of each article is same?

- (a) A
- (b) C
- (c) E
- (d) D
- (e) B

Directions (11-15): **Study the table and answer the questions that follows.**

The given table shows the no. of branches of Axis bank in 5 different City, total no. of employee in that city and respective ratio of male to female employees in city.

City	Branch	Total no. of employee	Male to female Ratio
Delhi	16	240	7 : 5
Bhopal	18	360	13 : 5
Hyderabad	14	168	4 : 3
Nagpur	22	352	9 : 7
Surat	24	480	5 : 3

Q11. Find the ratio of female employee working in Delhi's and Bhopal's branches together to male employee working in Surat's branch

- (a) 5 : 4
- (b) 2 : 3
- (c) 7 : 5
- (d) 9 : 4
- (e) 4 : 9

Q12. Average no. of female employee working in each branch of Nagpur are how much percent more or less than average no. of female employee working in each branch of Surat.

- (a) $4\frac{1}{2}\%$
- (b) 8%
- (c) 16%
- (d) $12\frac{1}{3}\%$
- (e) $6\frac{2}{3}\%$

Q13. Find total no. of female employee working in these 5 cities.

- (a) 606
- (b) 644
- (c) 498
- (d) 541
- (e) 675

Q14. If 30% employee from Delhi are post graduate and ratio of male to female post graduate employee in Delhi is 5 : 3. Then find the difference of non-post graduate male employee and non-post graduate female employee in Delhi .

- (a) 41
- (b) 22
- (c) 33
- (d) 17
- (e) 29

Q15. If 33 male employees and 15 female employee retires from Nagpur zone, then in remaining employee male employees are how much percent of female employee

- (a) $165\frac{1}{2}\%$
 (b) $91\frac{2}{5}\%$
 (c) $111\frac{2}{3}\%$
 (d) $118\frac{98}{139}\%$
 (e) $137\frac{1}{6}\%$

Solutions

S1. Ans.(d)

Total sale of Audi A4 in the year = 5800 lakhs

Total sale of Audi A4 in the Sep-Oct and Nov-Dec
 = 5800 - 4800 = 1000 lakhs

Let sale in Nov-Dec = x

$$81\frac{9}{11}\% \text{ of } x + x = 1000$$

$$\frac{900}{1100}x + x = 1000$$

$$\frac{9x + 11x}{11} = 1000$$

$$\frac{20x}{11} = 1000$$

$$x = 550 \text{ lakh}$$

$$\therefore \text{Sale in Sep-Oct} = 1000 - 550 = 450 \text{ lakhs}$$

$$\therefore \text{required average} = (1344 + 450) \times \frac{1}{2}$$

$$= \frac{1}{2} \times (1794) \text{ Lakhs} = 897 \text{ lakhs}$$

Sol.

S2. Ans.(c)

$$\text{Required \%} = \frac{(21+12)-17}{17} \times 100$$

$$= \frac{33 - 17}{17} \times 100$$

$$= \frac{16}{17} \times 100$$

$$= 94\frac{2}{17}\%$$

Sol.

S3. Ans.(e)



Let total sale of Audi A3 for the year = x

$$\therefore \frac{15x}{100} = \frac{21}{100} \times 3600$$

$$x = 5040 \text{ Lakh}$$

Sol. \therefore required sale = $(5040 - 3600) = 1440$ lakhs

S4. Ans.(a)

$$\begin{aligned} \text{Required \%} &= \frac{\frac{1}{2} \left(\frac{23+22}{100} \right) \times 4800}{\frac{24}{100} \times 3600} \times 100 \\ &= \frac{1080}{864} \times 100 \end{aligned}$$

Sol. = 125%

S5. Ans.(b)

$$\begin{aligned} \text{Required Sale} &= 3600 + \left(180 + \frac{28}{100} \times 4800 \right) \\ &= 1524 + 3600 \\ &= 5124 \text{ lakhs.} \end{aligned}$$

Sol.

S6. Ans.(b)

Sol.

Let Selling price of article 'A' and 'E' is $100x$

$$\text{Mark price of article 'A'} = \frac{100x}{70} \times 100$$

$$\text{Cost price of article 'A'} = \frac{100x}{70} \times 100 \times \frac{100}{150} = \frac{2000x}{21}$$

Similarly

$$\text{Mark price of article 'E'} = \frac{100x}{90} \times 100$$

$$\text{Cost price of article 'E'} = \frac{100x}{90} \times 100 \times \frac{100}{150} = \frac{2000x}{27}$$

$$\text{Required Ratio} = \frac{\frac{2000x}{21}}{\frac{2000x}{27}} = \frac{27}{21} = \frac{9}{7}$$

S7. Ans.(e)

Sol.

Let cost price of article 'B' and article 'C' be $100x$ and $100y$ reactively

ATQ,

$$100x - 100y = 50 \dots \dots \dots (i)$$

And

$$100x \times \frac{180}{100} - 100y \times \frac{160}{100} = 130$$

$$180x - 160y = 130 \dots \dots \dots (ii)$$

On solving (i) and (ii) We got

$$x = 2.5 \text{ and } y = 2$$

$$\text{Selling price of article 'B'} = 100 \times 2.5 \times \frac{180}{100} \times \frac{60}{100} = 270$$

$$\text{Selling price of article 'C'} = 100 \times 2 \times \frac{160}{100} \times \frac{80}{100} = 256$$

$$\text{Required difference} = 270 - 256 = \text{Rs. } 14$$

S8. Ans.(a)

Sol.

Let cost price of article 'D' = Rs. $100x$

$$\text{Mark price of article 'D'} = 100x \times \frac{140}{100} = 140x$$

$$\text{Selling price of article 'D'} = 140x \times \frac{75}{100} = 105x$$

ATQ,

$$105x - 100x = 24$$

$$5x = 24$$

$$\text{Mark price of article} = 140x = \frac{24}{5} \times 140 = \text{Rs. } 672$$

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S9. Ans.(e)

Sol.

Let Selling price of article 'B' = $270x$

Then Selling price of article 'C' = $160x$

$$\text{Cost price of article 'B'} = 270x \times \frac{100}{60} \times \frac{100}{180} = 250x$$

$$\text{Cost price of article 'C'} = 160x \times \frac{100}{80} \times \frac{100}{160} = 125x$$

$$\text{Required \%} = \frac{250x - 125x}{125x} \times 100 = 100\%$$

S10. Ans.(c)

Sol.

Let cost price of each article be Rs. $100x$

$$\text{Profit on selling article 'A'} = 100x \times \frac{150}{100} \times \frac{70}{100} - 100x = 5x$$

Similarly

$$\text{Profit on Article 'B'} = 8x$$

$$\text{Profit on Article 'C'} = 28x$$

$$\text{Profit on Article 'D'} = 5x$$

$$\text{Profit on Article 'E'} = 35x$$

So maximum profit is on selling article 'E'

S11. Ans.(b)

$$\begin{aligned} \text{Required ratio} &= \frac{\frac{5}{12} \times 240 + \frac{5}{18} \times 360}{\frac{5}{8} \times 480} \\ &= \frac{100 + 100}{300} = \frac{2}{3} \\ \text{Sol.} &= 2 : 3 \end{aligned}$$

S12. Ans.(e)

Total female employee working in Nagpur

$$\begin{aligned} &= \frac{7}{16} \times 352 \\ &= 154 \end{aligned}$$

Average of female employee working in

$$\text{each branch of Nagpur} = \frac{154}{22} = 7$$

Total female employee working in Surat

$$\begin{aligned} &= \frac{3}{8} \times 480 \\ &= 180 \end{aligned}$$

Average of female employee working in

$$\text{each branch of Surat} = \frac{180}{24} = \frac{15}{2}$$

$$\text{Required percent} = \frac{\frac{15}{2} \times 7}{\frac{15}{2}} \times 100$$

$$\text{Sol.} = 6\frac{2}{3}\%$$

S13. Ans.(a)

Total female employee

$$\begin{aligned} &= \frac{5}{12} \times 240 + \frac{5}{18} \times 360 + \frac{3}{7} \times 168 + \frac{7}{16} \times 352 + \frac{3}{8} \times 480 \\ &= 100 + 100 + 72 + 152 + 180 \\ &= 606 \end{aligned}$$

Sol.

S14. Ans.(b)



$$\begin{aligned} \text{Total male employee from Delhi} &= \frac{7}{12} \times 240 \\ &= 140 \end{aligned}$$

$$\begin{aligned} \text{Total female employee from Delhi} &= \frac{5}{12} \times 240 \\ &= 100 \end{aligned}$$

$$\begin{aligned} \text{Post graduate employee from Delhi} &= \frac{30}{100} \times 240 \\ &= 72 \end{aligned}$$

$$\begin{aligned} \text{Male post graduate employee from Delhi} \\ &= \frac{5}{8} \times 72 = 45 \end{aligned}$$

$$\begin{aligned} \text{Female post graduate employee from Delhi} \\ &= \frac{3}{8} \times 72 = 27 \end{aligned}$$

Sol.

$$\text{Non- post graduate male employee from Delhi} = 140 - 45 = 95$$

$$\text{Non-post graduate female employee from Delhi} = 100 - 27 = 73$$

$$\text{Required difference} = 95 - 73 = 22$$

S15. Ans.(d)

$$\text{Total employee in Nagpur zone} = 352$$

$$\text{Total male employee in Nagpur zone}$$

$$= \frac{9}{16} \times 352 = 198$$

$$\text{Total female employee in Nagpur zone}$$

$$= \frac{7}{16} \times 352 = 154$$

$$\text{Male employee remaining after retirement}$$

$$= 198 - 33 = 165$$

$$\text{Female employee remaining after retirement}$$

$$= 154 - 15 = 139$$

$$\text{Required percentage} = \frac{165}{139} \times 100 = 118 \frac{98}{139} \%$$

Sol.

