Quiz Date: 16th August 2020

Q1. In the mixture of 120 liters the ratio of milk and water is 3:5. How many liters milk should be added to the mixture so that the ratio of milk and water may reverse?
(a) 72 liters
(b) 64 liters
(c) 56 liters
(d) 76 liters
(e) 80 liters

Q2. P and Q entered into partnership investing Rs 12000 and Rs 16000 respectively. After 8 months, R also joins the business with a capital of Rs 15000. The share of R (in Rs.) in a profit of Rs 45600 after 2 years will be :
(a) 24000
(b) 16000
(c) 12000
(d) 11400
(e) 14000

Q3. A dishonest dealer sells the goods at 10% loss on cost price but he uses 20% less weight. What is his percentage profit or loss?
(a) 12.5% gain
(b) 12.5% loss
(c) $16\frac{2}{3}$ %loss
(d) $16\frac{2}{3}$ gain
(e) None of these

Q4. The average income of 40 persons is Rs. 4200 and that of another 35 persons is Rs. 4000. The average income of the whole group is
(a) Rs. 4,100
(b) Rs.4,106$\frac{1}{3}$
(c) Rs. 4,106$\frac{2}{3}$
(d) Rs. 4,108$\frac{1}{3}$
(e) Rs. 4233

Q5. Uday bought 100 kg of rice for Rs. 1100 and sold it at a loss of as much money as he received for 20 kg rice. At what price did he sell the rice?(Rounded off to two decimal places)
(a) Rs. 8.47per kg
(b) Rs. 9.17per kg
(c) Rs. 7.25 per kg
(d) Rs. 10.33 per kg
(e) Rs. 7.23 per kg

Directions (6-10): **Find the missing term in the following number series.**

Q6. 113,   130,   164,   215,   ?,   368
(a) 293
(b) 273
(c) 283
(d) 327
(e) 382

Q7. 705,   728,   774,   843,   935,   1050,   ?
(a) 1190
(b) 1180
(c) 1185
(d) 1188
(e) 1818

Q8. 16, 16, 40,   160,   880,   ?
(a) 7480
(b) 6160
(c) 4400
(d) 5720
(e) 6600

Q9. 60.5,   72,   84.5, 98,   112.5, ?
(a) 125
(b) 122
(c) 126
(d) 128
(e) 132

Q10. 4,   2,   2,   3,   6,   ?
(a) 12
(b) 15
(c) 24
(d) 18
(e) 21

Directions (11-15): The following table shows the total number of employees working in company TCS and ratio of men to women over six different years. Study the table and answers the questions that follow.

Years	Total number of employees	Men: Woman
2011	8,00,000	7: 3
2012	8,50,000	11: 6

2013	9,54,500	3: 2
2014	9,80,500	11: 9
2015	8,65,000	13: 12
2016	9,25,000	1: 1

Q11. Find the average no. of women employees in the year 2011 and 2015.
(a) 3,27,600
(b) 3,80,400
(c) 4,26,500
(d) 4,56,500
(e) 5,20,500

Q12. The women employees working in the company in the years 2012 and 2014 together are approximately what percent of total employees in the year 2011?
(a) 81 %
(b) 99%
(c) 93%
(d) 108%
(e) 76%

Q13. If 20% employees were rusticated in the year 2016, then find the no. of women employees who got rusticated in 2016 (It is given that the number of females in the rusticated employees is equal to no. of rusticated males)?
(a) 85,500
(b) 1,05,000
(c) 95,000
(d) 92,500
(e) None of these

Q14. What is the difference between no. of male employees in years 2012, 2013 and 2016 together and no. of female employees in the same years together?
(a) 4,40,900
(b) 5,50,000
(c) 6,55,000
(d) 7,65,000
(e) 5,24,000

Q15. In which year, the difference between man and woman employees is maximum
(a) 2011
(b) 2012
(c) 2014
(d) 2015
(e) 2016

Solutions

S1. Ans (e)
Sol.
Let milk and water are $3x$ and $5x$ $liters$ respectively
$3x + 5x = 120$
$x = 15$
So, milk=45 liters
And water=75 liters
ATQ,
Let x $liters$ milk be added
$\frac{45+x}{75} = \frac{5}{3}$
$x = 80$ $liters$

S2. Ans.(c)
Sol. Share of R = $\frac{(15000 \times 16)}{(12000 \times 24)+(16000 \times 24)+(15000 \times 16)} = 12000 Rs$

S3. Ans.(a)
Sol. Let CP = Rs 1000
SP at 10% loss = $\frac{(100-90)}{100} \times 1000 = 900$ Rs
But actual CP = $1000 \times \frac{(100-20)}{100} = 800$ Rs
Profit percentage = $\frac{(900-800)}{800} \times 100 = 12.5\%$

S4. Ans. (c)
Sol. Required average = $\frac{40 \times 4200 + 35 \times 4000}{75}$
$= \frac{168000+140000}{75}$
$= \frac{308000}{75}$
$= 4106\frac{2}{3}$ Rs.

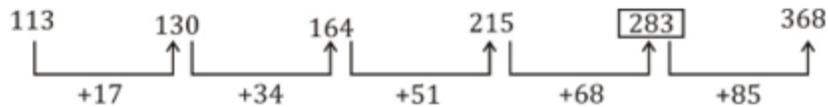S5. Ans.(b)
Sol.
Let selling price of rice = Rs. x per kg
ATQ,
$1100 - 100x = 20x$
$\Rightarrow x \approx 9.17$ per kg

S6. Ans.(c)
Sol.

Series is

113　　130　　164　　215　　283　　368

$+17$　　$+34$　　$+51$　　$+68$　　$+85$

S7. Ans.(d)
Sol.
Pattern is $+23 \times 1, +23 \times 2, +23 \times 3, +23 \times 4, +23 \times 5$
$\therefore ? = 1050 + 23 \times 6 = 1188$

S8. Ans.(b)
Sol.
Pattern is $\times 1, \times 2.5, \times 4, \times 5.5, \times 7, 8.5$
$\therefore ? = 880 \times 7$
$= 6160$

S9. Ans.(d)
Sol.
Pattern is $+11.5, +12.5, +13.5, +14.5, +15.5$
$\therefore ? = 112.5 + 15.5$
$= 128$

S10. Ans.(b)
Sol.
Pattern is $\times 0.5, \times 1, \times 1.5, \times 2, \times 2.5$
$\therefore ? = 6 \times 2.5$
$= 15$

S11. Ans.(a)
Sol.
Required average no. of women employees
$= \frac{1}{2} \times \left(\frac{3}{10} \times 8,00,000 + \frac{12}{25} \times 8,65,000 \right)$
$= \frac{1}{2} \times (2,40,000 + 4,15,200)$
$= 3,27,600$

S12. Ans.(c)
Sol.
Women working in company in years 2012 and 2014 together
$= \left(\frac{6}{17} \times 8,50,000 + \frac{9}{20} \times 9,80,500 \right)$
$= 3,00,000 + 4,41,225$

= 7,41,225

∴ Required percentage $= \frac{741225}{800000} \times 100$

= 92.65% =93% approx

S13. Ans.(d)
Sol.
The no. of woman employees who were rusticated

$= \frac{20}{100} \times 9,25,000 \times \frac{1}{2}$

= 92,500

S14. Ans.(a)
Sol.
Required difference $= \left(\frac{11}{17} \times 8,50,000 + \frac{3}{5} \times 9,54,500 + \frac{1}{2} \times 9,25,000\right) - \left(\frac{6}{17} \times 8,50,000 + \frac{2}{5} \times 9,54,500 + \frac{1}{2} \times 9,25,000\right)$

= (5,50,000+ 5,72,700+ 4,62,500) – (3,00,000+3,81,800+ 4,62,500)

= 4,40,900

S15. Ans.(a)
Sol.
Difference in man and woman employees in year 2011 $= \frac{(7-3)}{(7+3)} \times 8,00,000$

= 3,20,000

In year 2012 $= \frac{(11-6)}{(6+11)} \times 8,50,000$

= 2,50,000

In year 2014 $= \frac{(11-9)}{(9+11)} \times 9,80,500 = 98,050$

In rest years difference of ratio looks smaller than the above data calculated

∴ maximum difference is in year = 2011

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