

Directions (1-5): Study the following information and answer the questions that follow.

The graph given below represents the production (in tonnes) and sales (in tonnes) of company A from 2006-2011.



The table given below represents the ratio of the production (in tonnes) of company A to the production (in tonnes) of company B, and the ratio of the sales (in tonnes) of company A to the sales (in tonnes) of company B.

Year	Production	Sales
2006	5:4	2:3
2007	8:7	11:12
2008	3:4	9:14
2009	11:12	4:5
2010	14:13	10:9
2011	13:14	1:1

Q1. What is the approximate percentage increase in the production of company A (in tonnes) from the year 2009 to the production of company A (in tonnes) in the year 2010?

(a) 18%

- (b) 38%
- (c) 23%
- (d) 27%
- (e) 32%

Q2. The sales of company A in the year 2009 was approximately what per cent of the production of company A in the same year?

- (a) 65%
- (b) 73%
- (c) 79%
- (d) 83%

Q3. What is the average production of company B (in tonnes) from the year 2006 to the year 2011?

(a) 574

(e) 69%

- (b) 649 (c) 675
- (d) 593
- (e) 618

Q4. What is the ratio of the total production (in tonnes) of company A to the total sales (in tonnes) of company A?

(a) 8	81:	64
(b)	64 :	55
(c) 7	71:	81
(d)	71:	55
(e)	81:	55

Q5. What is the ratio of production of company B (in tonnes) in the year 2006 to production of company B (in tonnes) in the year 2008?

- (a) 2 : 5
 (b) 4 : 5
 (c) 3 : 4
- (d) 3 : 5
- . .
- (e) 1 : 4

Q6. 8 men can complete a piece of work in 18 days, 18 women complete in 10 days while 6 children complete in 12 days. 4 children, 12 men and 20 women work for 2 days. If only children were to complete the remaining work in 1 day. How many children are required.

(a) 36

(b) 24

- (c) 18
- (d) Can't determine
- (e) None of these



Q7. Shubham alone can make 100 baskets in 6 days while Swati can make 25 baskets in 3 days. In how many days can Shubham and Swati together make 100 baskets?

(a) 3 days

(b) 5 days

(c) 5/2 days

(d) 7/2 days

(e) 4 days

Q8. If the shopkeeper earned a profit of Rs. 433 on each mobile phone sold of company B during October, what was his total profit earned on the mobile phones of that company during the same month?

(a) Rs. 649900

(b) Rs. 645900

(c) Rs. 649400

(d) Rs. 649500

(e) None of these

Q9. A 200 m long 2 m high and 40 cm wide wall is built by 20 men, 30 women and 60 children working 6 hours a day in 20 days. How long a wall 1.5 m high 60 cm wide can be built by 10 men, 15 women, 30 children working 9 hours a day in 15 days?

(a) 75 m

(b) 150 m

(c) 225 m

(d) 166.66 m

(e) None of these

Q10. If 2 horses are worth 3 oxen, and 5 oxen are worth 12 sheep, and 2 sheep are worth Rs. 500, the value of the horse is

(a) Rs. 800

- (b) Rs. 600
- (c) Rs. 900
- (d) Rs. 750
- (e) None of these

Directions (11-15): Study the following Table and answer the following questions carefully. Following Table shows the percentage population of six States below poverty line and the proportion of male and female.

State	Percentage population below poverty line	Proportion of male and female	
		Below poverty line M : F	Above poverty line M : F
А	12	3:2	4:3
В	15	5:7	3:4
С	25	4:5	2:3
D	26	1:2	5:6
Е	10	6:5	3:2
F	32	2:3	4:5

Q11. The total population of state A is 3000, then what is the approximate number of females above poverty line in state A?

(a) 1130 (b) 2112

(c) 1800

(d) 1950

(e) 2025

Q12. If the total population of C and D together is 18000, then what is the total no. of females below poverty line in the above stated states? (a) 5000

(b) 5500

(c) 4800 (d) Data inadequate

(e) None of these

Q13. If the population of males below poverty line in State A is 3000 and that in State E is 6000, then what is the ratio of the total population of State A and E?

(a) 3:4

(b) 4:5 (c) 1:2

(d) 2:3

(e) None of these

Q14. If the population of males below poverty line in State B is 500 then what is the total population of that state?

(a) 14400

(b) 6000 (c) 8000

- (d) 7600
- (e) None of these

Q15. If in State E population of females above poverty line is 19800 then what is the population of males below poverty line in that State? (a) 5500 (b) 3000

(c) 2970

(d) Data inadequate (e) None of these



Solutions:

S1. Ans.(d) Sol. Production of company A in year 2009 = 550 Production of company A in year 2010 = 700 ∴ Required percentage =(700 - 550)/550×100 =150/550×100 =300/11=27.27≈27% S2. Ans.(b) Sol. Sales of company A in year 2009 = 400 Production of company A in year 2009 = 550 Required percentage =400/550×100 =800/11=72.72≈73% S3. Ans.(c) Sol. Average production of company B=(600 +700 + 800 + 600 + 650 + 700)/6 =4050/6=675 S4. Ans.(e) Sol. Required ratio = =(Total production of company A)/(Total sales of company A) =4050/2750=81/50 or 81:50 S5. Ans.(c) Sol. Production of company B in the year $2006 = 150 \times 4 = 600$ Production of company B in the year $2008 = 200 \times 4 = 800$ ∴ Required ratio =600/800=3:4 S6. Ans.(a) Sol. 8 M = 18 days $M = 18 \times 8 = 144 \text{ days}$ $W = 18 \times 10 = 180 \text{ days}$ $C = 6 \times 12 = 72 \text{ days}$ Let work be 720 unit then M = 5 unit daily W = 4 unit daily C = 10 unit daily 4 children, 12 men, 20 women = 40 + 60 + 80 = 180 unit × 2 = 360 unit Rest 720 - 360 = 360 unit So, no. of children who complete in 1 day = 360/10 = 36 S7: S . Ans.(e) Sol. Swati 25 baskets = 3 days 100 basket = 12 days

S8. Ans.(d)

Sol. Number of mobile phones sold in the month of October

So, they complete together $=\frac{1}{12}+\frac{1}{6}=\frac{3}{12}=4$ days

=45000×8/100=3600 .: Number of mobile phones sold by company B in the month of October

=3600×5/12=1500

Shubham = 6 days

 \therefore Total profit earned by company B in the month of October = 1500 \times 433 = 649500

S 9: S . Ans.(e) Sol. $\frac{20M + 30W + 60C}{20M + 30W + 60C} = 2$ 10M + 15W + 30C $M_1D_1H_1$ $M_2D_2H_2$ So. W₁ W2 1×15×9 2×20×6 200×2×40 $1.5 \times 60 \times x$ 15×9×200×2×40 = 100 m 1.5×60×2×20×6

S10. Ans.(c)
Sol. 2 sheep = 500 Rs.
12 sheep = 500 × 6 = 5 oxen
3 oxen = 600 × 3 = 2 houses
1 horses = 900 Rs.

S11. Ans.(a) Sol. Number of females above poverty line in State A = $3000 \times (100 - 12)\% \times \frac{3}{7} \approx 1130.$

S12. Ans.(d)

Sol. Since we cannot find the population of States C and D separately, we cannot find the required value.

S13. Ans.(e) Sol. Population of State A below poverty line = $3000 \times \frac{5}{3} = 5000$ \therefore Total population of State A = $\frac{5000}{12} \times 100$ And the population of State E below poverty line = $6000 \times \frac{11}{6} = 11000$ \therefore Total population of State E = $\frac{11000}{10} \times 100$ \therefore Required ratio = $\frac{5}{12} \times \frac{10}{11} = \frac{25}{66}$.

S14. Ans.(c) Sol. Total population of State B = $500 \left(\frac{12}{5}\right) \left(\frac{100}{15}\right) = 8000.$



S15. Ans.(b) Sol. Population of State E = $19800 \left(\frac{5}{2}\right) \left(\frac{100}{100 - 10}\right) = 55000$