Solutions:

S1.Ans(d)

Sol: Successive discount $= -35\% + 35\% - \frac{35 \times 35}{100} = -12.25\%$

S2. Ans.(c)

Sol. Let a number be x then

$x \times \frac{70}{100} - x \times \frac{35}{100} = 87.5$

$\frac{35x}{100} = 87.5 \Rightarrow 250$

Hence 22% of 250 $\Rightarrow \frac{250 \times 22}{100} = 55$

S3. Ans.(b)

Sol. Total Voter = 12000

80% of 12000 = 9600

Votes received by Shubham $= \frac{9600 \times 65}{100} = 6240$

Votes received by Ravi = 9600 - 6240 = 3360

S4. Ans.(b)

Sol. ATQ,

$A \times \frac{1}{7} = B \times \frac{1}{7}, \quad B = C \times \frac{5}{100}$

$B = 980 \times \frac{5}{100} = 49$

$A \times \frac{1}{7} = 49 \times \frac{1}{7} = 49$

Now,

$= A \times \frac{80}{100} + B \times \frac{40}{100}$

$= 49 \times \frac{80}{100} + 49 \times \frac{40}{100}$

= 39.2 + 19.6 = 58.8

S5. Ans.(d)

Sol.

Sahil : Saloni : Solanki : Sakshi

  130   100   172.5   224.25

Difference = (224.25 - 100) = 124.25

124.25 → 1118.25

1 unit → 9

Solanki's income = 172.5 × 9 = 1552.5

S6. Ans.(a)
Sol. Weighted Average Concept :
$$\Rightarrow \frac{45\% \times 65\% + 55\% \times 40\%}{100}$$
$$\Rightarrow 51.25\%$$

S7. Ans.(b)
Sol. Income = Expenditure + saving

Income = Expenditure + Saving
100   55   45
-19.3%   +20%   8.3
119.3   =   66   +   53.3

Required Result = $\frac{8.3}{45} \times 100 = 814 = 18.4\%$

S8. Ans.(c)
Sol. He declares that 500 pieces of the item can be obtained immediately against cash payment, but a customers will get only 300 pieces of the item if he defers the payment for one year.
So, Buyer pays (500 - 300) = 200 pieces items as interest on principal amount of 300 pieces in case of different payment for a year.
Let R% be the Rate of interest
A.T.Q
(300 × R × 1) ÷ 100 = 200
$R = \frac{200}{3} = 66\frac{2}{3}\%$

S9. Ans.(c)
Sol. 96% x = 112%y
$$\frac{x}{y} = \frac{7}{6}$$
13   ×40   → 520
6 → 40 × 6 = 240

S10. Ans.(d)
Sol. 100% → 125%
53 – 25
= 28% × 3 = 84% extra
4th month salary to be paid
$\Rightarrow$ 125% - 84%

$\Rightarrow 41\% \to 82,000$

$\Rightarrow 1\% \to 2,000$

$\Rightarrow 125\% \; 250,000$

Actual salary $\to$ Rs. 250,000

S11. Ans.(b)

Sol. Amount of Sugar will remain constant

Sugar Amount = Concentration × Solution

$13.2\% \times 14 = C\% \times 8$

$\frac{13.2 \times 14}{8} = C\%$

$23.1\% = C$

S12. Ans.(c)

Sol. Let total number of voters be 100.

A	B
40	60
-6	+6
+15	-15
49	51

$2 \to 600$
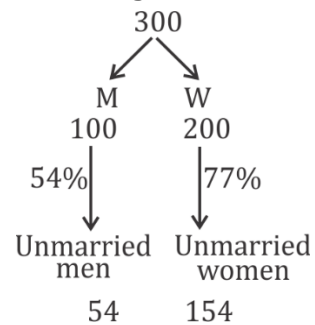
$1 \to 300$

∴ Total Voters = 100 × 300

$\Rightarrow 30000$

S13. Ans.(a)

Sol. A.T.Q

Number of men be M and number of Women be W.

46% of M = 23% of W

$\frac{2}{1} = \frac{W}{M}$

Assuming Men And Women be 100 and 200

1% of unmarried adults $= \frac{154+54}{300} \times 100$

= 69.33%

S14. Ans.(d)
Sol. A.T.Q
Assuming incomes of A, B and C be a, b and c

$\frac{30}{100}a : \frac{10}{100}b : \frac{1}{4}c = 3 : 27 : 4$

a : b : c = 10 : 270 : 16

16 – 10 = 6

6 → 24,000
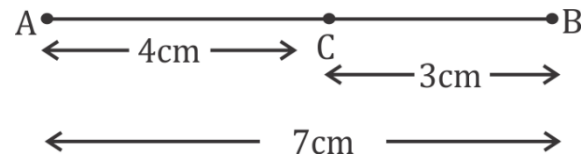
1 → 4000

27 → Rs. 108,000

S15. Ans.(d)
Sol.

BC ⟹ AB – AC

⟹ 7 – 4

⟹ 3 cm

A.T.Q (Since A and B are fixed points)

AC × 5% = BC × x% [∵ Assume length of CB is decreased by x%]

4 × 5% = 3 × x%

$\frac{20}{3}\% = x$

S16. Ans.(a)
Sol.

Pigeons	Rabbit
2	2 + 2

1020
- 640
380 Legs are

$\frac{380}{2} = 190$

Rabbits = 190

Pigeons = 320 – 190 = 130

S17. Ans.(b)

Sol.

Aditi		Geetanjali		Sangeeta		Arundhati
5	:	4				
		5	:	4		
				3	:	4
75	:	60	:	48	:	64

$75 \rightarrow 825$

$1 \rightarrow 11$

Arundhati get marks = 11 × 64

= 704

S18. Ans.(a)

Sol. A.T.Q

100%   − 13%   → 87%

$13\% \rightarrow 2873$

$1\% \rightarrow 221$

$87\% \rightarrow 221 \times 87$

$87\% \rightarrow 19,227$

Amount paid = Rs. 19,227

S19. Ans.(b)

Sol.

Revenue → 4 : 5

Price →   5 : 3

Sale →   12 : 25

% increase $\frac{25-12}{12} \times 100$

$\Rightarrow \frac{13}{12} \times 100$

$\Rightarrow 108.33\%$

S20. Ans.(b)

Sol.

A : B

7 : 10

A.T.Q

$= \frac{(10+7)-(7)}{7} \times 100$

$\Rightarrow 142.85\%$