(A) Profit & Loss :- <6>

1. (b) $SP = \left(\frac{97}{100}\right) \times CP$

$\Rightarrow CP = \left(\frac{20855 \times 100}{97}\right) = ₹\ 21500$

New SP $= \left(\frac{21500 \times 107}{100}\right) = \boxed{₹\ 23005}$

2. (c) Let Original CP (A) is ₹ $100x$

Now, " SP (B) is ₹ $120x$

New; CP (A) be ₹ $85x$

New; SP (B) be ₹ $(120x - 76)$

$\therefore$ Profit $= \frac{85x \times 30}{100} = \frac{51x}{2}$

$\therefore$ According to the question:

$(120x - 76) - 85x = \frac{51x}{2}$

$\Rightarrow 120x - 85x - \frac{51x}{2} = 76$

$\Rightarrow 240x - 170x - 51x = 152$

$\Rightarrow 19x = 152$

$\Rightarrow x = 8$

$\therefore$ Value of B is ₹ $120x$ = $\boxed{₹\ 960}$

3. (a) Total CP $= \{(30 \times 75) + (20 \times 70)\} = ₹\ 3650$

$\therefore$ Total SP $= \{(30 + 20) \times 80\} = ₹\ 4000$

$\therefore$ gain $= (4000 - 3650) = \boxed{₹\ 350}$

(A) Profit & Loss :- ⟨7⟩

1.(a) ∴ Required answer $= \left[\frac{80-65}{65} \times 100\right] = \boxed{23\%\ \text{profit}}$

5.(c) $z = x - y - \frac{xy}{100} \Rightarrow 15 = x - 20 - \frac{20x}{100}$

$\Rightarrow \frac{4x}{5} = 35 \Rightarrow x = \left(\frac{175}{4}\right) = \boxed{43.75\%}$

6.(a) Let CP = ₹ 100

∴ MP = ₹ 122

Now, SP = ₹ 111

∴ Discount (%) $= \left[\frac{122-111}{122} \times 100\right]$

$= \boxed{9\%}$

7.(b) LCM of 3, 3 and 5 is 15.

Let the number of mangoes in each case be 15.

CP_1		CP_2		Total CP	Total SP	
M	(₹)	M	(₹)	(200 + 180)	M	(₹)
3	40	5	60	= ₹ 380	3	50 ×10
15	200	15	180		30	500

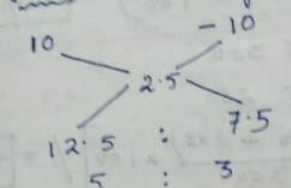
∴ Profit (%) $= \left[\frac{500-380}{380} \times 100\right] = \boxed{32\%}$

8.(c) Let the Cost of production be ₹ x.

∴ $x \times \frac{105}{100} \times \frac{108}{100} \times \frac{112}{100} = 1247$

$\Rightarrow x = \frac{1247 \times 100 \times 100 \times 100}{105 \times 108 \times 112} = \boxed{₹\ 982}$

9. (b) (Cow) (Carriage)



Cost price of Cow = $\left(\frac{5}{8} \times 5000\right)$

= ₹ 3125

10. (d) Loss (%) = $\left[\frac{4}{(16+9)} \times 100\right]$ = 20%

11. Total Cost [For 10 tables] = {(600 × 10) + 1600 + 400}

= ₹ 8000

(c)

Now, CP of One table = $\left(\frac{₹\,8000}{10}\right)$ = ₹ 800

∴ SP = $\left(\frac{800 \times 120}{100}\right)$ = ₹ 960

12. (a) I Case → $\left(\frac{80}{100} \times 1000\right)$ = ₹ 800

II Case → $\left(1000 \times \frac{90 \times 90}{100 \times 100}\right)$ = ₹ 810

∴ Required Difference be = ₹ (810 − 800)

= ₹ 10

13. (d) $\left(CP \times \frac{90}{100}\right)$ = 270

⇒ CP = 300

∴ SP = $\left(\frac{300 \times 115}{100}\right)$

= ₹ 345

14. (b) Let the CP be ₹ 100x

∴ According to the question:

$(120x - 85x)$ = 50

⇒ 35x = 50

⇒ $x = \frac{50}{35} = \frac{10}{7}$

⇒ $100x = \left(\frac{1000}{7}\right)$

(A) PROFIT & LOSS :- (7)

15. (c) Profit % (Z) = $20 + 10 + \left(\frac{20 \times 10}{100}\right) = \boxed{32\%}$

16. (b) Price of 3 books = ₹ 300

SP of 3 books = ₹ 288

$\therefore$ Discount (%) = $\left[\frac{(300 - 288)}{300} \times 100\right]\% = \boxed{4\%}$

17. (a) Now SP of the article (LHS) = SP of the article (R.H.S)

$\frac{MP \times (100 - 20)}{100} = \frac{CP \times (100 + 15)}{100}$

$\Rightarrow (CP/MP) = \frac{80}{115} = \frac{16}{23} = \boxed{16 : 23}$

18. (b) After 1st discount, the SP is = $750 - \left(\frac{750 \times 10}{100}\right)$

= ₹ 675

$\therefore$ The 2nd discount is = $\left[\frac{(675 - 550) \times 100}{675}\right] = \boxed{18\%}$

19. (d) (1st Article) 16 — 0 — 14 (2nd Article)

14 : 16

7 : 8

$\therefore$ CP of 1st article = $\left(\frac{7}{15} \times 7500\right)$ = ₹ 3500

Now CP of 2nd article = (7500 − 3500) = ₹ 4000

$\therefore$ Difference between the SP of 2 items be:

$\left(\frac{3500 \times 116}{100}\right) - \left(\frac{4000 \times 86}{100}\right) = \boxed{620}$

20.(b) Let the CP be ₹ 100x.

∴ According the question:

$118x = 3560$

$\Rightarrow x = \frac{3560}{118}$

$\therefore 100x = \left(\frac{3560}{118} \times 100\right)$

CP = ₹ 3017

21.(c) Gain (%) $= \left[\left(\frac{1000 - 900}{900}\right) \times 100\right]\% = 11.11\%$

22.(a) Let the percentage be x%.

$\therefore \left(\frac{2}{5} \times 10\right) + \frac{3}{5}x = 20$

$\Rightarrow \frac{3}{5}x = 16$

$\Rightarrow x = \frac{80}{3}$

$\Rightarrow x = 26\frac{2}{3}\%$

23.(a) Let the no. of toffees are x.

∴ According to the question :-

$100 \times 27 = 150 \times x \Rightarrow \frac{2}{\cancel{3}} \times \cancel{27}^{9} = \frac{\cancel{3}}{\cancel{6}} \times x \Rightarrow x = 18$

24.(c) Let CP of 8 articles be ₹ 8

∴ CP of 4 " " ₹ 4 (Loss)

Then Loss (%) $= \left(\frac{4}{8} \times 100\right)\% = 50\%$

25.(c) Let the CP of the item be ₹ 4x.

∴ SP of the item be ₹ 3x.

Loss (₹) = ₹ x

∴ Loss (%) $= \left[\frac{x}{4x} \times 100\right]\% = 25\%$

X