Aptitude

1) Ans :- $\dfrac{25}{100} \times 200 = \underline{\underline{50}}$

b) $\underline{50}$

2) $\longrightarrow$ $\dfrac{40}{100} \times x = 80$

$x = \dfrac{80^{2} \times 100}{40}$

$\boxed{x = 200}$ Ans :$\longrightarrow$ c) $\boxed{200}$

3) $\longrightarrow$ $\dfrac{75}{100} \times x = 150$

$x = \dfrac{150^{2} \times 100}{75_{1}}$ $= \boxed{200}$

Ans :$\longrightarrow$ b) $\underline{200}$

4) $\longrightarrow$ $\dfrac{15^{3} \times 12^{6}}{2100} = 18$

Ans :$\longrightarrow$ c) $\boxed{18}$

5) $\longrightarrow$

$\dfrac{30}{100} \times x = 90$

$x = \dfrac{90^{3} \times 100}{30}$ $x = \underline{300}$

Ans :$\longrightarrow$ c) $\boxed{300}$

6) $\rightarrow$ 200 $\longrightarrow$ 250

$$\frac{\text{difference}}{\text{old}} \times 100 = \frac{\overset{25}{\cancel{50}}}{\cancel{200}} \times 100$$

Ans :- b) 25%

7) $\rightarrow$

40000 $\rightarrow$ 50000

$$\frac{\text{diff.}}{\text{old}} \times 100 = \frac{10000}{\cancel{40000}_2} \times \overset{50}{\cancel{100}} = 25$$

Ans : $\rightarrow$ b) 25%

8) $\rightarrow$

10000 $\rightarrow$ 8000

$$\frac{\text{diff.}}{\text{old}} \times 100 = \frac{\cancel{2000}}{\cancel{10000}} \times \cancel{100} = 20$$

Ans : $\rightarrow$ c) 20%

9) $\rightarrow$ 500 $\rightarrow$ 400

$$\frac{\text{diff}}{\text{old}} \times 100 = \frac{\cancel{100}}{\cancel{500}} \times \overset{20}{\cancel{100}} = 20$$

Ans : $\rightarrow$ c) 20%

10) → CP = 600 , SP = 450 , L% = ?

L = CP - SP = 150

$L\% = \dfrac{L}{CP} \times 100$

$= \dfrac{\cancel{150}^{\cancel{50}^{25}}}{\cancel{2600}} \times \cancel{100} = 25\%$

Ans :→ c) 25% ✓

11) → 30% of 400 or 40% of 300

400 → 40 ← 10%
  $\underset{120}{\dfrac{3}{}}$

300 → 30 ← 10%
  $\underset{120}{\dfrac{4}{}}$

30% = 120

40% = 120

Ans :→ c) Both are equal ✓

12) → Spend = 60% & save = Rs 8000

~~Total = spend~~ Total = 100%

Savaing = 100 - 60
        = 40%

$\dfrac{40}{100} \times x = 8000$

$x = \dfrac{\overset{2}{\cancel{8000}} \times 100}{\cancel{40}}$

x = 20000

Ans = c) Rs 20000

13) → $B = 100$, A is 20% more than B

$\qquad A = 120$

$\dfrac{diff.}{A} \times 100$

$= \dfrac{\overset{10}{\cancel{20}} \times \overset{5}{\cancel{100}}}{\underset{3}{\cancel{6}}\,\cancel{120}} = \dfrac{50}{3} = 16.67\%$

Ans :- $\boxed{\text{b) } 16.67\%}$

15) → $B = 100$

$A = 140$

$\dfrac{\overset{2}{\cancel{40}}}{\underset{7}{\cancel{140}}} \times 100 = \dfrac{200}{7} = 28.57\%$

Ans :- $\boxed{\text{a) } 28.57\%}$

$\frac{11}{+2} \frac{1}{\frac{2}{12}}$
$\frac{108}{}$

16) →
$\overset{+20\%}{\longrightarrow}$ $\overset{-10\%}{\longrightarrow}$
100%   120%   108

+ 8 %
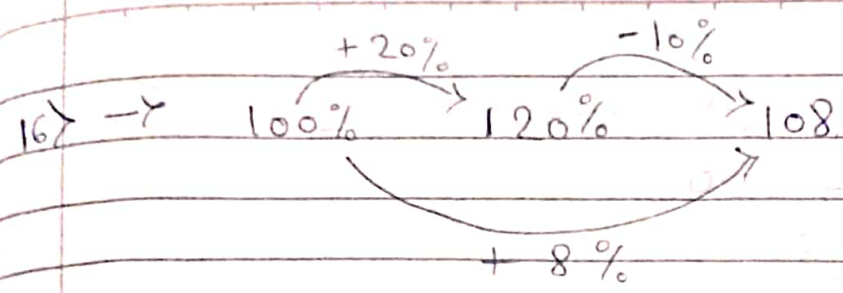
∴ net % change = 8 % increase

Ans = a) | 8% increase |
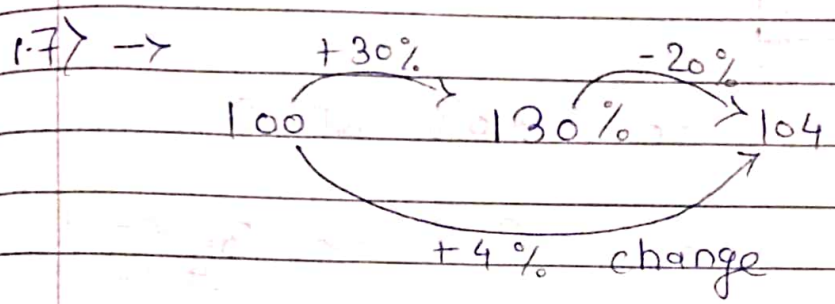
1·7) →   +30%   -20%

$\frac{\frac{2}{1}\overset{10}{3\!\!\!/\,\!\!\!/}}{\frac{26}{104}}$ $\frac{13}{\frac{2}{26}}$

100   130%   104

+4% change

$5\overline{)\frac{\frac{25}{125}}{25}}$

Ans :→ a) | 4% increase |

18) →   +25%   -20%

100   125%   125-25 = 100%

$\frac{\overset{5}{\cancel{20}}}{\underset{100}{\cancel{}}} \times \overset{\overset{5}{25}}{125}$
$\frac{420}{}$

$\frac{20}{100} \times 125$ 25
$\overline{520}$

0%

Ans :→ | a) 0% |

19) →   +40%   -30%

$\begin{array}{c} 14 \\ \frac{3}{42} \end{array}$ $\begin{array}{c} 13 \ |_0 \\ +\!\!\!\!\!\!\not{4}\,\!\not{0} \\ \underline{4 \ 2} \\ 9 \ 8 \end{array}$

100   140%   98 %

- 2 %

Ans :→ | d) 2% decrease |

$$\overset{+20}{\overbrace{\qquad}} \quad \overset{-10\%}{\overbrace{\qquad}}$$

20) $\to$ 100   120%   108

$$\underbrace{\qquad\qquad}_{+8\%}$$
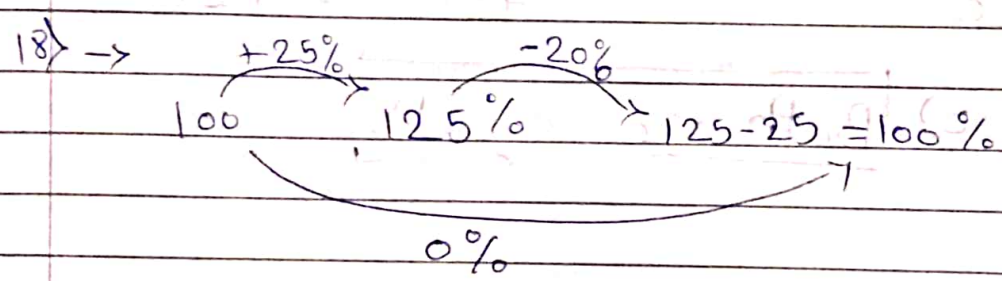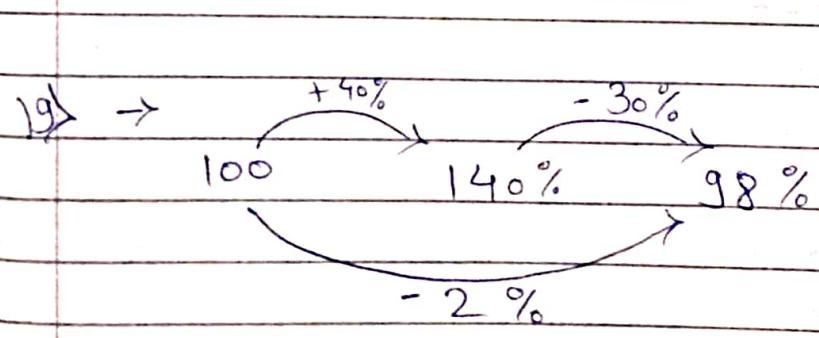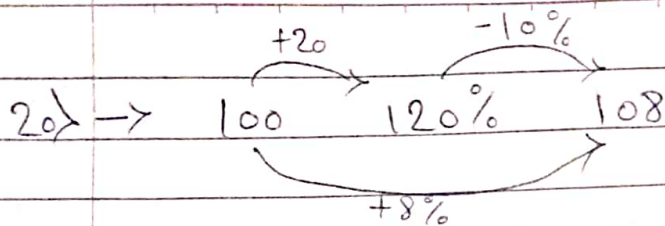
Ans :$\to$ [a) 8% increase]

21) $\to$ P% = 25% of CP   (cP = 100)

$$= \frac{25}{100} \times 100$$

P% = 25

SP = CP + 25 = 100 + 25

SP = 125

what % the SP is of CP

$$= \frac{SP}{CP} \times 100 = \frac{125}{100} \times 100$$

SP = 125%

Ans :- [b) 125%]

23) $\to$ P = 20% of CP   (CP = 100)

$$= \frac{20}{100} \times 100$$

P = 20

$$P\% = \frac{P}{SP}$$

$\therefore$ SP = CP + P = 100 + 20 = 120

$$P\% = \frac{\overset{1}{20}}{\underset{6}{120}} \times 100$$

P% = 16.67%

Ans :- [a) 16.67%]

24) → MP = 1200 , SP = 960

Dis = ?

Dis = MP − SP = 1200 − 960

= 240

$D\% = \dfrac{Dis}{MP} \times 100 = \dfrac{\overset{2}{240}}{\underset{1}{1200}} \times 100$

$D\% = 20\%$

Ans :− b) $\boxed{20\%\backslash}$.

25) → CP = 500 , SP = 650 .

P% = ?

P = SP − CP = 650 − 500

= 150

$P\% = \dfrac{\overset{3}{150}}{\underset{1}{500}} \times 100$

= 30%

Ans :− $\boxed{c)\ 30\%}$.

26) → B = 100

A = 20% more than B

A = 120

$LP\% = \dfrac{\overset{10}{20}}{\underset{6}{120}} \times 100$

= 16.67%

Ans = a) $\boxed{16.67}$

27) → $\dfrac{B}{G} = \dfrac{3}{2}$

Total $= 3+2 = 5$

$B\% = \dfrac{3}{5} \times \cancel{100}^{20}$

$= 60$

∴ Ans :- $\boxed{b) \ 60\%}$

28) → old $= 200000$

New $= 250000$

∴ Percentage $= \dfrac{diff}{200000} \times 100$

$= \dfrac{50000}{200000} \times 100$

$= 25\%$

Ans :- $\boxed{b) \ 25\%}$

29) → $T = 100\%$ Win $= 3000$

$C_1 = 65\%$ ∴ $30\% \times x = 3000$

Remaining $= 100 - 65 = 35$ $x = \dfrac{3000 \times 100}{30}$

35% to C_2

∴ $65 - 35 = 30\%$ $x = 10000$

i.e. win by 30% votes

Ans :- $\boxed{10000}$

30) →

$\overset{-30\%}{100 \longrightarrow 70}$ (i.e. $70 + 30 = 100$)

$\% = \dfrac{increase}{new \ price} \times 100 = \dfrac{30}{70} \times 100 = 42.85\%$

Ans :→ $\boxed{b) \ 42.85\%}$

31) →   +50   -50%
          100   150   705

Ans :- b) 25% decrease

          -25%
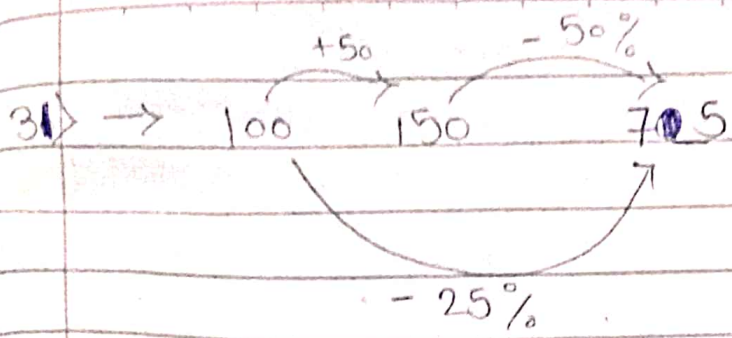
32) → B = 100   then   A is 20% tall than B
                    i.e.   A = 120%

$= \dfrac{diff}{A} \times 100$

$= \dfrac{20}{6120} \times 100 = 16.67\%$

Ans :-   a) 16.67%

33) → let no be the number,

$30\% \times no = 90$ $no = \dfrac{90^{3}}{30} \times 100$
$60\% \times no = ?$ $\dfrac{}{30}$

$\dfrac{30}{100} \times no = 90$ $no = \underline{300}$

$\dfrac{60}{100} \times 300 = \underline{180}$

            ∴ Ans :- c) 180

34) → spend = 75% , Save = Rs 5000
    Total income = ?

    T = Spend - save
      = 25 (100 - 75)

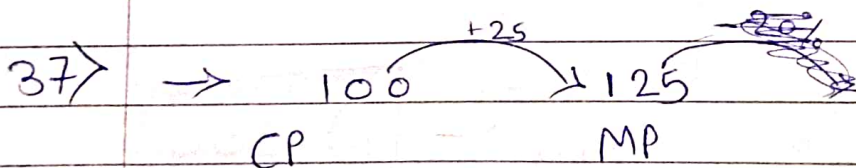   25% of Total income = 5000
    25% of $\times$ T = 5000
    T = $5000 \times \dfrac{100}{25}$
      = 20 000

    Ans :- $\boxed{20000}$

36) →   +20   -10%
        100 ⟶ 120 ⟶ 108
              +8%

    Ans :- a) $\boxed{8\% \text{ increase}}$

37) →   +25
        100 ⟶ 125
        CP   MP
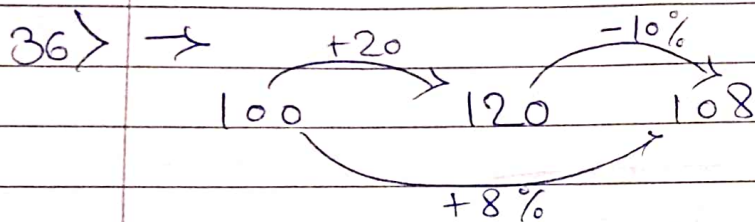
    dis = 20% of MP
        = $\dfrac{20}{100} \times 125$ = 25
             5

    SP = MP - dis = 125 - 25 = 100
    SP = CP   ∴ 0 change

    Ans :→ $\boxed{\text{a) } 0\%}$

38) → CP = 500

Sold at a loss of 20%

SP = ?

$$L\% = 20\% = \frac{500 \times 20}{100}$$

$$= 100$$

SP = CP - L = 500 - 100

SP = 400

Ans :- c) 400

39) →

$$\overset{+10\%}{\underset{100 \qquad 110 \qquad 99}{\longrightarrow}}$$

$$-1\%$$
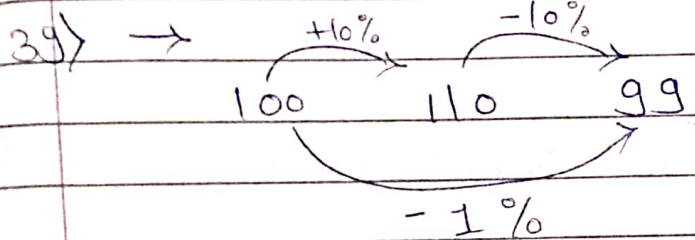
$$\begin{array}{c} 10 \\ \cancel{11} \\ 99 \end{array}$$

Ans :→ b) $\boxed{1\% \text{ decrease}}$

40) → Pass = 40%

M obtain = 200

Fail by = + 20

2 2 0

Passing M = 220

Total = ?

Ans :- b) $\boxed{550}$

$$40\% \text{ of } T = 220$$

$$T = \frac{2\cancel{2}0 \times \cancel{100}^{50}}{\cancel{40}_{2}} = 550$$

41) → R = 20%
    F = 30% | Spend = 60%
    T = 10% | ∴ Save = 40%
    <u>60%</u>

∴ Total salary = 40% of T = 18000

$$T = \frac{18000 \times 100^5}{240}$$

= 45000

∴ Ans :- b) 45000

42) →

+30   -30%

100   130   91

-9%

$\frac{13}{3}$ $\frac{13}{39}$ (2/10... 39, 91)

Ans :- b) 9% decrease

43) → Current Pop. = 10,000

1 yr = 10% increase |Ans:- a) 13310

1 yr :→ 10000   = 11000
      + 1000
      <u>11000</u>

2 yr :→ 11000   = 12100
      + 1100
      <u>12100</u>

3 yr :→ 12100   = 13310
      + 1210
      <u>13310</u>

44) → 15% of A = 20% of B

$$15\% \times A = 20\% \times B$$

$$\frac{A}{B} = \frac{20^4 \times 100}{100 \times 15_3}$$

A : B = 4 : 3

Ans :— $\boxed{\text{b) } 4:3}$

45) → P% = 25%

CP = 800

$$P = 25\% \times 800$$

$$= \frac{25}{100} \times 800 = 200$$

$$SP = P + CP = 800 + 200$$

$$= 1000$$

Ans :— $\boxed{\text{b) } 1000}$

46) → CP = 200 , SP = 250

P% = ?

P = 250 − 200 = 50

$$P\% = \frac{\overset{25}{\cancel{50}}}{\underset{1}{\cancel{200}}} \times 100$$

∴ Ans :— $\boxed{\text{b) } 25\%}$

47) → $SP = 720$, $P = 20\%$
$CP = ?$

48) → $L\% = 15\%$, $CP = 500$,
$SP = ?$

$L\% = \dfrac{L}{CP} \times 100$

$L = \dfrac{L\% \times CP}{100} = \dfrac{15 \times 500}{100}$

$L = 75$

$SP = CP - L = 500 - 75$

$SP = 425$

Ans :- b) 425

49) → $CP = 1500$, $SP = ?$
$L = 10\%$

$L = \dfrac{10 \times 1500}{100} = 150$

$SP = 1500 - 150$
$= 1350$

Ans :- c) 1350

50) → $CP = 100$, $MP = 130$

$dis = 130 \times \dfrac{10}{100} = 13$