Q1. 25% 200

$\frac{25}{100} \times 200 = 50$

b = 50

Q2. 40% of 80

$\frac{40}{100} \times x = 80$

$x = \frac{80}{0.4}$

$x = 200$

c = 200

Q3. 75% of num is 150.

$\frac{75}{100} \times x = 150$

$x = \frac{150}{75/100}$

$x = 200$

b = 200

Q4 15% of 120

$\frac{15}{100} \times 120 = 18$ c = 18

Q5. 30% of num is 90.

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

$x = \frac{90}{0.3}$

$= \underline{300}$

Q6 Price of ~~profit~~ product increases from 200 to 250.

$I = 250 - 200 = 50$

$\text{Increase} = \frac{50}{200} = 0.25$

$P = 0.25 \times 100 = \underline{25\%}$

Q7. Salary increase: 40000 to 50,000

$I = 50000 - 40000$

$= 10000$

$\text{Increase} = \frac{10000}{40000} = 0.25$

$P = 0.25 \times 100 = \underline{25\%}$

Q8 decrease $= 10000 - 8000 = 2000$

$d = \frac{2000}{10000} = \frac{2}{10} = 0.2$

$P = 0.2 \times 100 = \underline{20\%}$

Q9. Price drop = 500 - 400
= 100

$d = \frac{100}{500} = 0.2$

$P = 0.2 \times 100 = \underline{20\%}$

Q10. CP = 600 SP = 450

d = 600 - 450
= 150

$P = \frac{150}{600} = \frac{1}{4} = 0.25$

$P = 0.25 \times 100 = \underline{25\%}$

Q11. 30% of 400

$= \frac{30}{100} \times 400 = 120$

40% of 300

$= \frac{40}{100} \times 300$

$= 0.40 \times 300$

$= 120$

Both are equal.

Q12. Saving percentage = 100% - 60% = 40%

40% = 8000

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

$= 0.40 \times x = 8000$

$= x = \frac{8000}{0.40}$

$x = 20000$

Q13. A is 20% more than B

let B = 100 A = 120

D = 120 - 100 = 20

$PA = \frac{20}{120} \times 100$

$= 16.67$

Q14.

Per. Reduced: $\frac{25}{(100+25)} \times 100$

$= \frac{25}{125} \times 100 = 20\%$

Q15. 40% more than B.

$$\text{Pt} = \frac{40}{100+40} \times 100$$

$$= \frac{40}{140} \times 100$$

$$= 28.57\%$$

Q16. original = 100

increase by 20% : $100 + \left(\frac{20}{100}\right) \times 100$

$: 120$

increase by 10% $= 120 - \left(\frac{10}{100}\right) \times 120$

$= 120 - 12$

$= 108$

Net change $= 108 - 100 = 8$

8% increase.

Q17. Let $N = 100$

Incr 30% $= 100 + \frac{30}{100} \times 100$

$= 130$

decr

~~Incr~~ 20% $= 130 - \frac{20}{100} \times 130$

$= 130 - 26$

$= 104$

Net change $= 104 - 100 = 4$

4% increase

Q18. Let $P = 100$

Inc 25% $= 100 + \frac{25}{100} \times 100$

$= 125$

dec

Inc 20% $= 125 - \frac{20}{100} \times 125$

$= 100$

$= 0$

Net Change $= 100 - 100$

$= 0\%$

9). Let $p = 100$

Inc : 40% : $100 + \left(\frac{40}{100}\right) \times 100$

$= 140$

dec by 30% : $140 - \frac{30}{100} \times 140$

$= 98$

Net change : $100 - 98$

$= 2$.

Net change : 2% decrease.

10). Let $S = 100$

Inc 20% : $100 + \frac{20}{100} \times 100$

$= 120$

dec 10% : $120 - \frac{10}{100} \times 120$

$= 108$

Net change : $108 - 100$

$= 8$

8% increase.

Q21. CP = 100 %  SP = 100 + 25 = 125 %

Profit = 25

SP = 125 %

Q22.

SP = MP - Dis

Dis = 10 % of 500

= $\frac{10}{100} \times 500$

= 50

SP = 500 - 50

= 450

Cost Price = 450 = $x + \frac{8}{100} x$

$450 = x(1 + 0.08)$

$450 = 1.08x$

$x = \frac{450}{1.08}$

$x = 420$

Q23 Let CP be 100

profit = 20% of 100.
= 20

SP = CP + profit = 100 + 20
= 120

Perc profit = $\frac{20}{120} \times 100 = 16.67\%$

Q24 Dis = 1200 − 960
= 240

per Dis = $\frac{240}{1200} \times 100 = 20\%$

Q25 Dis = 650 − 500
= 150

per profit = $\frac{150}{500} \times 100$

= 30%

Q26 Let B = 100 A = 120
= 120 − 100 = 20

Pl = $\frac{20}{120} \times 100 = 16.67\%$

Q22. ratio = B : 2 : 5

perc. boys = $\frac{3}{5} \times 100$

= 60%

Q24 Incr = 2500000 − 2000000

= 500000

per Incr = $\frac{500000}{2500000} \times 100$

= 25%

Q29 cand - A = 65% B = 35%

Diff = 65 − 35

= 30%

vote. 30% = 3000

Total vote = $\frac{3000}{0.30}$

= 10000

Q30. perc. increase = $\frac{30}{100 - 30} \times 100$

= $\frac{30}{70} \times 100$

= 42.85%

Q31. Let N = 100

Incr 50% of 100 = 150

Decr by 50% = $150 - \frac{50}{100} \times 150$

= 75

Net change = 75 - 100

= 25% decrease.

Q32. A 20% more than B

= 120 - 100

= 20.

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

Hence B is shorter than A by 16.67%

Q33. If 30% is 90

10% = $\frac{90}{3}$ = 30

Therefore 60% is 30 × 6 = 180

Q34. speed 75%
= 100% − 75%
= 25%.

25% of income = 5000

Total = $\frac{5000}{(25/100)}$ − 5000 × 4 = 20000
= 20000

Q35

Q36. 20% increase.
Let 120 or 100 = 20%.

Consumption value = $\frac{20}{120} \times 100$
= 16.67%.

Q38.

Q39.

~~Initial price = 100 + 20.~~

increase by 20% = 100 + 20

decr by 10% = 120 − 12
= 108

Net change = 108 − 100
= 8% Increase.

Q37.

Let CP = 100

MP = 100 + 25 = 125

Discount % = $\frac{20}{100} \times 125$

= 25

SP = 125 − 25 = 100

Profit = 100 − 100

= 0.

Q38. CP = 500 Loss = 20%.

Loss = $\frac{20}{100} \times 500$

SP = 500 − 100 = 400

Q39. Let SP = 100

Increase by 10% = 100 + 10

= 110

Decrease by 10% = 110 − $\frac{10}{100} \times 110$

= 99.

Net change = 1

1% decrease.

Q40 passing No. 40 %.

passing marks = 200 + 20

= 220.

40% of total marks = 220

$\left(\frac{40}{100}\right)$ $220 = 200 \times \frac{100}{40} = 550$

Q41.

Total price = 20 + 30 + 10 = 60 %.

Saving price. 100 - 60 = 40.

40 % of Salary = 18000

Total Sal = $\frac{18000}{\left(\frac{40}{100}\right)}$ = 45000

Q42. Let cost be 100.

Incr 30 % = 100 + 30 = 130

Decr 30% = $130 - \frac{30}{100} \times 130 = 130 - 39$

= 91

Net change = 91 - 100 = 9 % decrease.

Q43 1 year = 10000 × 110
= 11000

2nd year = 11000 × 110
= 12100

3rd year = 12100 × 110
= 13310.

Q44 15% of A = 20% of B

$0.15A = 0.20B$

$\frac{A}{B} = \frac{0.20}{0.15} = \frac{20}{15} = \frac{4}{3}$

A : B = 4 : 3

Q45 Profit = $\frac{25}{100} \times 800$

= 200

SP = 800 + 200

= 1000

Q46 profit = 250 - 200

= 50

profit percentage = $\frac{50}{200} \times 100$

= 25%

G47 CP = x

120 x = 7200

x = 6000

G48

CP = 500 SP = 500 - $\frac{15 \times 500}{100}$

SP = 500 - 75

= 425

G49.

CP SP = 1500 SP = 1500 - $\frac{10 \times 1500}{100}$

= 1500 - 150

= 1350

SP = 1350

G50

CP = 100 SP = 130

discount: 10% = 130 - $\frac{10}{100} \times 130$

MP = 117 - 100 = 17%