Q1) = 25% of 200

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

b. 50

Q-2 40% of 80

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

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

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

$x = 200$

c = 20

Q-3 75% of num is 150

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

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

$x = 200$

b = 200

Q-4 15% of 120

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

c = 18

Q-5 30% of num is 90

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

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

$x = 300$

c = 300

084_Shubhada Aher_IH 1)

Q6] Price of product of increase 200 to 250

I 250 — 200

50

increase $\frac{50}{200}$

P = 0.25 × 100

P = 25%

Q-7] Salary inc 40,000 to 50,000

I = 50,000 - 40,000

10,000

Increase $\frac{10,000}{40000}$

$\frac{1}{4} = 0.25$

P = 0.25 × 100

25%

Q-8] price drop = 500 - 400

= 100

$d = \frac{100}{500}$ P = 0.2 × 100

$= \frac{1}{5} = 0.2$ P = 20%

9] decrease = 10,000 - 8000

= 2000

$d = \frac{2000}{10,000}$

$\frac{2}{10} = 0.2$

P = 0.2 × 100

20%

10] CP = 600 SP = 450

d = 600 − 450

= 150

D = 150/600 P = 0.25 × 100

1/4 = 0.25 25%

11] 30% of 400 40 of 300

= (30/100) × 400 (40/100) × 300

= 120 0.40 × 300

120

12] Saving percentage = 100% − 60% = 40%.

40% = 8000

40/100 × x = 8000

0.40 x = 8000

x = 8000/0.40

x = 20000

Q-13] A is 20% more than B

let B = 100 A = 120

D = 120 − 100

= 20

% = (20/120) × 100

16 2/3

14] percentage reduce (25/100 + 25) × 100

(25/125) × 100

20%

15] 40% more than B

% = (40/100 × 40) × 100

40/140 × 100

28.57%

Q-16] original = 100

increase by 20% = 100 + (20/100) × 100

increase by 10% = 120 − (10/100) × 120

120

= 120 − 12

= 108

net change = 108 − 100

= 8

8% increase

17] let N = 100

incre 30% = 100 + (30/100) × 100

= 130

incre 20% = 130 − (20/100) × 130

= 130 − 26

= 104

Net change = 104 − 100

= 4

4% increase

Q-18 let = 100

incr 25% = 100 + (25/100) × 100

125

incr 20% = 125 − (20/100) × 125

= 100

Net change = 100 − 100

= 0

= 0%

19) let ₹ = 100

Incr 40% = 100 + $\left(\frac{40}{100}\right) \times 100$

= 140

incr by 30% = 140 - $\left(\frac{30}{100}\right) * 40$

= 140 - 42

98

Net change = 98 - 100

= 2

Net change = 2% decrease

Q 20] let S = 100

increase - 20% · 100 + $\left(\frac{20}{100}\right) \times 100$

120

Net change 108 - 100

8% increase

incr. $\frac{120 \times 10}{100} \times 12$

120 - 12

108

Q-21] CP = 100%

profit 25%

SP 100% + 25%

= 125%

SP = 125%

Q-22 SP = MP - Dis

Discount = 10% of 500

$\left(\frac{10}{100}\right) \times 500$

50

SP 500 - 50

450

cost price - 450 = $\frac{x + 8}{100} x$

$450 = x\left(1 + 0.08\right)$

$450 = 1.08x$

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

415.67

Q-23) let up be 100

profit = 20% of 100

= 20

SP - CP + profit + 100 + 20

= 120

PP $\left(\frac{20}{120}\right) \times 100$

16.67 %

Q-24] Discount 1200 - 960

240

P. Dis = $\left(\frac{240}{1200}\right) \times 100$

20 %

Q-25] profit 650 - 500

= 150

per profit = $\left(\frac{150}{500}\right) \times 100$

= 30%

Q-26) let ₹ = 100 A 120

120 - 100

20

pl - $\frac{20}{120} \times 100$

16.67

Q-27] ratio 3 + 2 = 5

percentage boy $\left(\frac{3}{5}\right) \times 100$

60%

Q-28] Incr 2500000 - 2000000

= 500000

per Incr = $\left(\frac{500000}{2500000}\right) \times 100$

= 25%

Q 29] cond A = 65% B = 35%

Diff = 65 - 35

30%

Vote - 30% = 3000

total Vote = $\frac{3000}{0.30}$

10,000

Q-30] percentage increase = $\left(\frac{30}{100-30}\right) \times 100$

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

42.85%

Q-31] let No = 100

incr 50% of 100 = 150

decr by sold = $150 - \frac{50}{100} \times 150$

= 75

Net change 75 - 100

25% decrease

Q-32] A 20% taller than B

120 - 100

= 20

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

B is shorter than A 16.67%.

Q-33] If 30%, S = 90

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

30

Therefore 60% is 30 × 6

= 180

180

34] spend 75%

= 100% - 75%

= 25%

25% of income = 5000

Total = $\frac{5000}{\left(\frac{25}{100}\right)}$ = 5000 × 4 = 20,000

= 20,000

35] 20% increase

let 120 - 100 = 20%

Corresponding reduce = $\frac{20}{120} \times 100$

16.67%

= 16.67%

36] Initial price 100

incr by 20% = 100 + 120

120

decr by 10 = 120 - 12

= 108

= 108 - 100

= 8

percentage $\frac{8}{12} \times 100$

8% increase

Q 37] let up = 100

MP = 100 + 25 = 125

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

= 25

SP = 125 - 25 = 100

profit = 100 - 100

= 0

38] CP = 500 loss - 20%.

$\text{loss} = \frac{20}{100} \times 500$

SP = 500 - 100

400

39] let sal 100

increase by 10% = 100 + 10

= 110

decrease by 10% = $110 - \left(\frac{110}{100}\right) \times 110$

= 110 - 11

= 99

Net change = 1

1% percentage

40] passing No - 40%

passing marks - 200 + 20

= 220

40% of total marks - 220

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

= 550

41] Total per 20 + 30 + 10

= 60%

Saving per = 100 - 60

= 40

40% of salary = 18000

total sal. $\frac{18000}{40/100}$ =

= 45000

42] let cost rate = 100

increase 30% = 100 + 30

= 130

decrease 30% 130 - $\left(\frac{130}{100}\right) \times 130$

= 130 - 39

= 91

Net change = 91 - 100

= 9

Net percentage 9% decrease

43] 1 years = 10,000 × 1.10

= 11000

2nd year - 11000 × 1.10

12100

3rd year = 12100 × 1.10

13310

44] 15% of A = 20% of B

0.15 A = 0.20 B

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

A : B = 4 : 3

45] profit = $\frac{25}{100} \times 800$

= 200

SP = 800 + 200

1000

46) profit - 250 - 200

50

profit percentage - $\left(\frac{50}{200}\right) \times 100$

= 25%.

47) CP = x

$1.20x = 720$

$x = \frac{720}{1.20}$

$= 600$

48] loss $= \frac{15}{100} \times 500$

SP = 500 - 75

425

49) ~~lose~~ loss $= \left(\frac{10}{100}\right) \times 1500$

SP = 1500 - 150

1350

50]

Ref CP = 100

MP = 130

Discount - 10 % of 30

= ~~30~~ 13

SP = 130 - 13

117

Gain 117 - 100

17

Gain percentage - 17 %