

$$1) - \frac{25}{100} \times 2000$$

$$= 25 \times 2 = 50$$

Ans: b)

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

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

$$= 200$$

Ans: c)

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

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

$$= 200$$

Ans: c)

$$4) \frac{15}{100} \times 120$$

$$= 180/10$$

$$= 18$$

Ans: c)

$$5) \frac{30}{100} \times x = 90$$

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

$$= 300$$

Ans: c) 300

6)

$$\text{diff} = 250 - 200 = 50$$

$$\therefore \frac{50}{200} \times 100$$

$$x = 25(b)$$

7)

$$\text{diff} = 50000 - 40000$$

$$= 10,000$$

$$x = \frac{10000}{40000} \times 100$$

$$= 25$$

Ans: b)

8)

$$\text{diff} = 10000 - 8000$$

$$= 2000$$

$$x = \frac{2000}{10000} \times 100$$

$$= 20$$

Ans: c)

9)

$$\text{diff} = 500 - 400$$

$$= 100$$

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

$$= 20$$

Ans: c)

$$10) \text{SP} = 450, \text{CP} = 600$$

$$P = \text{CP} - \text{SP} = 150$$

$$\text{Profit} = \frac{150}{600} \times 100$$

Ans: c)

$$= \frac{150}{600} \times 100 = 25$$

11) 20% of 400

$$\frac{20}{100} \times 400 = 120$$

$$\therefore \text{Ans} = C$$

12) spend = 60%

$$\text{saved} = 100 - 60 = 40\%$$

$$\therefore \frac{80000}{40} \times 100 = 20,000$$

$$\therefore \text{Ans} = C$$

13)

$$A = 120\%$$

$$B = 100\%$$

$$A = 1.20B$$

$$B = \frac{1}{1.20} A$$

$$= \frac{100}{120} A = \frac{5}{6} A$$

$$A - B = A - \frac{5}{6} A$$

$$A - B = \frac{1}{6} A$$

$$\therefore \text{diff} = \frac{A-B}{A} \times 100$$

$$= \frac{\frac{1}{6} A}{A} \times 100$$

$$= \frac{100}{6}\%$$

$$= 16.667\%$$

$$\therefore \text{Ans} = B$$

40% of 300

$$\frac{40}{100} \times 300 = 120$$

14) ~~Expenditure~~ ~~to~~ ~~the~~ ~~total~~ ~~of~~ ~~25P~~

Expenditure = P x Consumption

$$C = 1.25 P$$

$$P = \frac{4}{5} C$$

$$\therefore \text{diff cost exp} = \frac{1 - \frac{4}{5} C}{C} \times 100$$

$$= \frac{5 - 4}{5} \times 100$$

$$= \frac{1}{5} \times 100$$

$$\therefore \text{Ans} = A$$

15)

$$B = \frac{140}{100} A$$

$$A = 1.40 B$$

$$B = \frac{100}{140} A$$

$$B = \frac{5}{7} A$$

$$\text{diff} = \frac{A-B}{A} \times 100$$

$$= \frac{A - \frac{5}{7} A}{A} \times 100$$

$$= \frac{2}{7} \times 100$$

$$= 28.57\%$$

$$\therefore \text{Ans} = A$$

16) Price increase = $P + 0.20P = 1.20P$
 Price decrease = $1.20P - 0.10(1.20P) = 1.20P - 0.12P$
 $= 1.08P$

$$\therefore \text{Net price} = 1.20P - P = 0.20P$$

$$\therefore \text{diff NP} = \frac{0.20P}{P} \times 100 = \frac{20}{100} \times 100 = 20\% \text{ inc}$$

$$\therefore \text{Ans} = a$$

17) $P_1 = P + 0.30P = 1.30P$

$$P_2 = 1.30P - 0.20(1.30P) = 1.30P - 0.26P = 1.04P$$

$$\therefore \text{Net price} = 1.04P - P = 0.04P$$

$$\therefore \text{FP} = \frac{0.04}{100} \times 100 \quad \text{change} = \frac{0.04P}{P} \times 100 = \frac{4}{100} \times 100 = 4$$

$$\therefore \text{Ans} = a$$

18) Increased = $P + 0.25P = 1.25P$

$$\text{Decreased} = 1.25P - 0.20(1.25P) = 1.25P - 0.25P = 1P$$

$$\therefore \text{CF change} = 1.25P - 1P = 0.25P$$

$$\therefore \text{Per } \frac{0.25P}{1P} \times 100 \text{ Net change} = 0 \times 100 = 0$$

$$\therefore \text{Ans} = a$$

19) Increased = $P + 0.40P = 1.40P$
 decreased = $1.40P - (1.40P \times 0.30) = 1.40P - 0.42P$
 $= 1.40P - 0.42P = 0.98P$

$$= 1.40P - 0.42P = 0.98P$$

$$\therefore \text{final change} = \frac{0.98P - P}{P} \times 100$$

$$= \frac{(0.98 - 1) \times 100}{1} = -2$$

$$= -2 \text{ (decrease)}$$

$$= -2 \text{ (decrease)}$$

$$\therefore \text{Ans} = d$$

20) Increased = $P + 0.20P = 1.20P$

$$\text{decreased} = 1.20P - 0.10(1.20P) = 1.20P - 0.12P = 1.08P$$

$$\therefore \text{final change} = \frac{1.08P - P}{P} \times 100$$

$$= 0.08 \times 100$$

$$= 8$$

$$\therefore \text{Ans} = a$$

21) Profit = 25%

$$CP = 100 + \text{Profit} = 125\%$$

$$\therefore \text{Selling price} = 125\%$$

$$\therefore \text{Ans} = b$$

22) Market price = ₹800 of 10% ds
~~dispr~~ D. 10 × ₹800 = 1000
 = ₹800

SP = MP - Dis = ₹800 - ₹80 = ₹720

CP = MP + profit

SP = CP + $\left(\frac{8}{100}\right) \times CP$ (profit 8%)

SP = 1.08 × CP

₹720 = 1.08 × CP

CP = $\frac{₹720 \times 100}{108}$

= ₹666.67

Ans: - b

23)

~~MP = ₹800~~

Profit = 20% of CP

$\frac{CP}{SP} = \frac{1}{1.2} = \frac{10}{12}$

$\therefore \%$ of SP = $\frac{20}{12} \times 10 = 16.67\%$

Ans: - a

24) MP = ₹1200

CP = MP - SP

= ₹1200 - ₹960

= ₹240

$\therefore \% ds = \frac{CP}{MP} \times 100 = \frac{240}{1200} \times 100 = 20\%$

Ans: - b

25) MP = ₹800
 SP = ₹650

P = SP - CP = ₹650 - ₹800 = ₹150

$\therefore \% = \frac{P}{CP} \times 100 = \frac{150}{800} \times 100 = 18.75\%$

Ans: - c

26) A = 1.2B

B = $\frac{A}{1.2} = \frac{100}{1.2}A - \frac{5}{6}A$

$\therefore (B) = \frac{A - B}{A} \times 100$

= $\frac{A - \frac{5}{6}A}{A} \times 100$

= $\frac{1}{6} \times 100$

= 16.67%

Ans: - a

27)

$\frac{B}{A} = \frac{3}{2}$

Netal = 5

$\therefore B = 3/5$

$\therefore \% \text{ boy} = \frac{3}{5} \times 100 = 60\%$

= 60%

Ans: - h

28)

diff = ₹20,000 - ₹21,00,000 = ₹20,000

$\therefore \% = \frac{₹20,000}{₹80,000} \times 100 = 25\%$

$\therefore B = 25\%$

29). Total vote = 100%

get = 65%

not get = 100 - 65 = 35%

$\therefore (65 - 35)\% = 3000$

$$\frac{80}{100} \times 3000 = 2400$$

$$N = \frac{1000}{80} \times 100$$

$$= 1250$$

Ans: Not given

reduce by 30%

saved = 100 - 30 = 70%

$$\% \text{ Increased} = \frac{30}{70} \times 100 = 42.85\%$$

31) Increased = 100 + 20 = 120%

decreased = 1.80P - 0.50(1.50P)

$$= 1.80P - 0.75P = 1.05P$$

$$\% \text{ change} = \frac{1P - 0.75P}{1P} \times 100$$

$$= 25\%$$

Ans: b

32) A = 20B

$$B = \frac{10}{20}A = \frac{1}{2}A$$

$$B = \frac{1}{2}A$$

$$\left(\frac{B}{A}\right) \times 100 = \frac{1}{2} \times 100 = 50\%$$

33) $\frac{30}{100} \times 100 = 30$

$$x = \frac{30 \times 100}{80}$$

$$= 37.5$$

$$\frac{60}{100} \times 100 = 60$$

$$x = \frac{60 \times 100}{80} = 75$$

$$x = 150$$

34) speed = 75%

Not speed = 100 - 75 = 25%

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

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

$$= 20,000$$

Ans: c

35) Increased = 100 + 20 = 120%

$$\% \text{ diff} = \frac{20}{120} \times 100 = \frac{10}{3} = 3.33\%$$

Ans: a

36) Increased = 100 + 20 = 120%

decreased = 1.2P - 0.1 \times 1.2P

$$= 1.2P - 0.12P = 1.08P$$

net change = 1P - 1.08P = -0.08P

$$\% \text{ change} = \frac{-0.08P}{1P} \times 100 = -8\%$$

$$= 8\%$$

Ans: a

$$37) MRP = 28\% + CP (100\%)$$

$$DS = 20\%$$

$$MRP = 125\%$$

$$\% = 20\% = \text{cost } 100\%$$

$$[MP = 10\%]$$

38)

$$CP = 800$$

$$W = 20\%$$

$$\% = \frac{20}{100} \times 800 = 160$$

$$SP = 400$$

$$[MP = C]$$

39)

$$\uparrow 10\% \rightarrow 110\%$$

$$\downarrow 10\% = 10\% [110]$$

$$= 11\%$$

$$\therefore \text{Net} = (110 - 1) = 99\%$$

$$\therefore 1\% \downarrow$$

$$[MP = B]$$

40) 40% to pass

200 marks & total by 20.

$$\therefore 200 + 20 = 40\% \times 100 = 95\% = \text{marks}$$

$$220 = 40\% \times 95\% = 95\%$$

$$\% = 100\%$$

$$100\% = 80\%$$

$$[MP = 800]$$

$$CP = 50 \times \frac{0.2}{0.01}$$

$$\frac{0.01 \times 0.2}{0.2} = 0.01$$

$$0.08 =$$

$$0.08 = 50 \times \frac{0.2}{0.01}$$

$$\frac{0.01 \times 0.2}{0.2} = 0.01$$

$$0.08 =$$

$$41) 20\% + 30\% + 10\% = 60\% \text{ spend}$$

$$40\% = 18,000$$

$$100\% = 45,000$$

$$[MP = B]$$

$$42) \uparrow 20\% = 130\%$$

$$\downarrow 30\% = 90\%$$

$$\therefore \text{Net} = 9\% = 100 - 91 = 9$$

$$= 9\% \downarrow$$

$$[MP = B]$$

43) 10% \uparrow every year

$$100 \times 3 \rightarrow 110 \times 3$$

$$\begin{array}{r} 100 \\ 10 \\ \hline 110 \end{array} \begin{array}{r} 11 \\ 11 \\ \hline 121 \end{array}$$

$$\begin{array}{r} 1000 \\ 100 \\ \hline 1100 \end{array} \begin{array}{r} 131 \\ 131 \\ \hline 1431 \end{array}$$

$$[MP = A]$$

44) B)

45) B)

46) B)

47) A)

48) B)

49) C)

50) A)