Discount

Solution

1. Answer: (B)
CP = ₹1200.
SP = 125% of CP = ₹1500
Let marked price be ₹x.
Then, 80% of x = 1500.
x = 1875.

2. Answer: (A)
Let MP of 1 kg of dal be Re. 1
So, CP of 50 kg dal = ₹50 × (0.8) = 40
And therefore, CP of 52 kg is ₹40
SP of 52 kg = ₹52
Profit percentage = 12/40 × 100 = 30%.

3. Answer: (D)
Let Marked price = ₹100
Amount paid by customer
= [(100–10%) × 95%] × 105% = 89.775%
Marked price = 1436.40/89.775% = ₹1600.

4. Answer: (B)
Let C.P. = 100
∴ M.P = 140
And S.P. = $\frac{100-x}{100} \times 140$
Also, S.P. = $\frac{112}{100} \times 100 = 112$
$\therefore \frac{100-x}{100} \times 140 = 112$
⇒ x = 20
Now, C.P. = 120, Profit = x% i.e. 20%
∴ S.P. = $\frac{120}{100} \times 120 = Rs.144$

5. Answer: (B)
Let the manufacturing cost = 100
The MRP of the product is 35% above its manufacturing cost.
The MRP of the product = 100 + 35% of 100
= 135
The retailer sells the product after offering a discount of 10% on the MRP
So, the retailer sells the product at 135 – 10% of 135 = 135 – 13.5 = 121.5
The retailer makes a 20% profit on his purchase price
So, the retailer sells the product at x + 20% of x = 120% of x.
Step to retailer sells the product at 121.5
= 120% of x
1.20x = 121.5
x = 101.25
The manufacturer sold the product at 101.25
Cost to the manufacturer is Rs. 100.
So, profit made by the manufacturer is
= Rs. 1.25.
the manufacturer makes 1.25% profit

6. Answer: (C)
Let M.P. ⇒ 100
So, selling price when discount is 4x%
⇒ 100 − 4x
On this 20% loss occur So CP
$\Rightarrow \frac{100-4x}{80} \times 100 \Rightarrow 125 - 5x$
When x% discount is given
Then profit = 25%
ATQ,
$\frac{(125-5x) \times 125}{100} = \frac{100 \times (100-x)}{100}$
$x = 10.714\% \approx 11\%$

7. Answer: (C)
From I,
Selling price of article = 3800 Rs.
Marked price of article = $\frac{3800}{95} \times 100$
= 4000
From II
Cost price = $\frac{4000}{125} \times 100$
= 3200
From I & II
Profit of shopkeeper = 3800 − 3200
= 600Rs.

8. Answer: (E)
S.P. = M.P. $\left(\frac{60}{100}\right)$
$\frac{S.P.}{M.P.} = \frac{3}{5}$
Let C.P. be 5y & S.P. be 8y.
ATQ,

3y = 450
y = Rs. 150
∴ SP = $8 \times 150 = Rs.1200$
$\therefore M.P. = \frac{1200 \times 5}{3} = Rs.2000$

9. Answer: (B)
SP = 1500
Let, MP = x
Quantity I = 550
Quantity II:
$x \times \frac{7}{8} = 1500$
$x = \frac{1500 \times 8}{7}$
$x = \frac{12000}{7}$
Quantity II > Quantity I

10. Answer: (B):
First we will find Quantity A,
Quantity A:
Here, Cost price (CP) = 140 and
Selling Price (SP) = 168
% Profit = (SP – CP)/CP × 100
⇒ % Profit = (168 – 140)/140 × 100 = 20
Now,
Quantity B:
Here, Marked Price (MP) = 2000
Selling Price (SP) = 1800
% Discount = (MP – SP)/MP × 100
⇒ % Discount = (2000 – 1800)/2000 × 100 = 10
Clearly, Quantity B < Quantity A

11. Answer: (C):
List price or marked price = Rs. 1000
⇒ Selling price of product = 1000 × (0.8) × (0.9) = Rs. 720
⇒ Cost price of product = Rs. (720 – 120) = Rs. 600

12. Answer: (B)
Let the MP be Rs. 100x
SP = $100x \times \frac{70}{100} \times \frac{90}{100} = 63x$
Discount = 100x – 63x = Rs. 925
⇒ x = 25
SP = 63 × 25 = Rs. 1575
Cost price for shopkeeper = $\frac{1575}{7} \times 8$
$= Rs.1800$

13. Answer: (E)
Let the MP be Rs. 100x
SP = $100x \times \frac{80}{100} \times \frac{85}{100} - 220$
$= Rs(68x - 220)$
ATQ
$(68x - 220) = \frac{160}{300} \times 100x$
⇒ x = 15
SP = 68 × 15 – 220 = Rs, 800
Cost price for shopkeeper
$= \frac{800}{8} \times 7 = Rs.700$

14. Answer: (D)
Let number of chairs and table bought be 9y and 8y respectively.
And marked price of chairs and tables equal 500x and 700x
According to question
$500x + 9y \times \frac{20}{100}$
$+ 700x \times 8y \times \frac{25}{100}$
$= 4600$
xy = 2
Total selling price of chairs
$= \frac{80}{100} \times 500 \times 9 \times 2$
= 1200 Rs.

15. Answer: (B)
Let the MP of a chair and a table be R. 5x and Rs. 8x respectively.
Ans, the number of chairs and tables bought be 6y and 5y respectively.
CP of a chair for Abhishek = $(100 - 20)\%$ of 5x = Rs.4x
CP of a table for Abhishek = $(100 - 25)\%$ of 8x = Rs.6x
Total CP for Abhishek = $4x \times 6y + 6x \times 5y = 24xy + 30xy = 54xy$
SP of a chair for Abhishek = $(100 - 25)\%$ of $(100 + 50)\%$ of 4x = 4.5x
SP of a table for Abhishek = $(100 - 20)\%$ of $(100 + 50)\%$ of 6x = 7.2x

Number of chairs sold in bunch of four by Abhishek = $\frac{2}{3}rd\ of\ 6y = 4y$

So, number of table sold for free by Abhishek

$= \frac{1}{4}th\ of\ 4y = y$

Total SP for Abhishek = 4.5x × 6y + 7.2x × (5y – y) = 27xy + 28/.8xy = 55.8xy

Profit% = $\frac{55.8xy - 54xy}{54xy} \times 100$

$= \frac{1.8xy}{54xy} \times 100$

$= 3\frac{1}{3}\%$

16. Answer: (C)

According to the question,

MP of a table = 300 + MP of a chair

⇒ 8x = 300 + 5x

⇒ x = 100

Total CP for Abhishek = 108000

⇒ 54xy = 108000

⇒ 54 × 100 × y = 108000

⇒ y = 20

Number of chairs purchased by Abhishek = 6y = 120

17. Answer: (B)

SP of article (to customer)

= 3000 − 300 = Rs. 2700

Marked price = 2700 × $\frac{100}{90} = Rs.3000$

CP of article = 2700 × $\frac{100}{120} = Rs.2250$

18. Answer: (B)

Let cost price is 100x

And markup price is 100y

ATQ,

$\frac{100y \times 80}{100} = 100x + 35$

$100x + 35 = 80y$ ……..(i)

$\frac{100y \times 60}{100} = \frac{100x \times 90}{100}$

$60y = 90x$

$y = \frac{2}{3}x$ ……(ii)

Solving (i) and (ii)

100x → 175

100y →262.5

19. Answer: (D)

Cannot be answered since price is not given.

20. Answer: (B)

Let A's CP of pen = x

ATQ,

(x + 60) = B's cost price

B's selling price = (x + 60) × $\frac{150}{100} \times \frac{75}{100}$

= 1.125x + 67.5

ATQ,

1.125 + 67.5 − x − 60 = 70

0.125x + 7.5 = 70

$x = \frac{62.5}{0.125} \Rightarrow x = 500$

A's cost price = Rs. 500