Value Added Tax

EXERCISE- 1

Solution -01

(i) Amount of tax collected by manufacturer

A = 10% of 18,000

$= \frac{10}{100} \times 18,000$

= Rs. 1800

Since the trader B earns a profit of ₹750, the Value added by the dealer B = ₹750.

∴ Amount of VAT Paid by B = 10% of ₹750.

= ₹75.

As trader C earns a profit of ₹900, the Value added by the dealer C = ₹900

∴ Amount of VAT Paid by C = 10% of 900

= ₹90.

∴ The amount of tax (under VAT) received by the state Government = ₹1,800 + ₹75 + ₹90

= ₹1,965.

(ii) The Value of the Machine Paid by the consumer

= ₹18,000 + ₹750 + ₹900

= ₹19,650

Tax Paid by the consumer for T.V = 10% of 19,650

= ₹1,965

The amount Paid by the consumer = ₹19,650 + ₹1,965

= ₹21,615.

Solution-02.

(i) Amount of tax collected by manufacturer

= 8% of 15,000

= ₹1,200.

Amount of tax received by the government from Whole-saler = 8% of profit (Since whole-saler earns a profit of ₹1,200)

= 8% of 1,200

= ₹96.

(ii) The value of the Machine paid by the consumer = ₹15,000 + ₹1,200 + ₹1,800

= ₹18,000

Tax paid by the consumer = 8% of ₹18,000

= ₹$\left(\frac{8}{100} \times 18,000\right)$.

= ₹1,440.

∴ The amount paid by the consumer per Machine = ₹18,000 + ₹1,440

= ₹19,440.

Solution-03

Amount paid by the manufacturer for Raw material = ₹40,000.

Sales tax Amount on Raw material = 4% of 40,000

= ₹1,600

Selling Price of Ready Stock = ₹78,000.

Sales tax on Ready stock = 7.5% of 78,000

= ₹5,850.

VAT Paid by the manufacturer

= Sales tax on Ready stock - Sales tax on Raw material

= ₹ 5,850 - ₹ 1,600

= ₹ 4,250.

Solution - 04.

As wholesaler sales camera to shopkeeper at 20% discount of marked price.

The selling price of camera by wholesaler

$= ₹\ 1,600 - ₹\ \frac{20}{100} \times 1,600$

= ₹ 1,600 - ₹ 320

= ₹ 1,280

Cost Price of camera by shopkeeper = ₹ 1,280.

(i) Selling price of camera by shop keeper = ₹ 1,600

VAT Paid by consumer = 6% of ₹ 1,600

= ₹ 96.

The price at which camera can be bought

= ₹ 1,600 + ₹ 96.

= ₹ 1,696.

(ii) Profit for the shopkeeper = - cost Price + Selling Price

= S.P - C.P

= ₹ 1,600 - ₹ 1,280

= ₹ 320.

VAT Paid by the shopkeeper = 6% of ₹ 320

= ₹ 19.20 Ps.

Solution-05.

(i) Printed Price of an Article ₹60,000.

As whole saler allows a discount of 20% to Shopkeeper, cost price of the Article

$= ₹60,000 - 20\% \text{ of } ₹60,000$

$= ₹60,000 - \frac{20}{100} \times 60,000$

$= ₹60,000 - ₹12,000$

$= ₹48,000.$

VAT Paid by the Shop keeper = 6% of ₹48,000

$= \frac{6}{100} \times 48000$

$= 6 \times 480$

$= ₹2880.$

cost to the shopkeeper inclusive of tax

$= ₹48,000 + ₹2,880$

$= ₹50,800.$

(ii) Profit of an Article to Shopkeeper

$= ₹60,000 - ₹48,000$

$= ₹12,000.$

[∵ Shopkeeper sells an Article at Marked Price).

VAT Paid by the Shop keeper to the government

$= \frac{(₹12,000) \times 6}{100}$

$= ₹720.$

(iii) Shopkeeper sells an Article at ₹ 60,000

VAT Paid by consumer = 6% of ₹ 60,000

$= \frac{6}{100} \times 60,000$

$= 6 \times 600$

$= ₹\ 3,600$

the cost to consumer inclusive of tax

$= ₹\ 60,000 + ₹\ 3,600$

$= ₹\ 63,600.$

Solution-06:-

Listed Price of an TV ₹ 24,000

Shop keeper bought a TV at a discount of 30% of Listed Price

∴ cost Price of a TV = 24,000 - 30% of Listed Price

$= 24,000 - \frac{30}{100} \times 24,000$

$= 24,000 - 7,200$

$= 16,800$

(i) Selling Price of a TV = 24,000 - 10% discount + ~~10% Tax~~

$= 24,000 - \frac{10}{100} \times 24,000$

$= 24,000 - 2,400$

$= ₹\ 21,600.$

Selling Price of a TV including Tax = 21,600 + 10% of 21,600

$= 21,600 + \frac{10}{100} \times 21,600$

$= 21,600 + 2160$

$= 23,760.$

(ii) VAT Paid by the shopkeeper = 10% of Profit.

Profit for shopkeeper by selling TV = Selling price - cost price.

$= ₹1,600 - 16,800$

$= 4,800$

VAT to be paid by the shop keeper = 10% of ₹4,800

$= \frac{10}{100} \times 4,800$

$= ₹480$

Solution-07.

Listed price of an Article = ₹1,500.

Rate of VAT = 12%.

VAT paid by shop keeper to the Government = ₹36.

$\Rightarrow$ 12% of profit = ₹36.

$\Rightarrow \frac{12 \times \text{profit}}{100} = ₹36$

$\Rightarrow$ Profit $= \frac{3600}{12}$

$\Rightarrow$ Profit = 300.

Profit for Article by shopkeeper = Selling price - cost price

$\therefore$ cost price = Selling price - Profit.

$= ₹1,500 - ₹300$

$= ₹1,200.$

Shop keeper Purchased cost of an Article = cost price + 12% VAT

$= ₹1200 + \frac{12}{100} \times 1200$

$= ₹1200 + ₹144 = ₹1344$

Solution-08.

List price of an Article = ₹800.

Let the amount of discount be ₹x.

As the shopkeeper sells the article at the List price, the profit of the shopkeeper = ₹x.

∴ The value added by the shopkeeper = ₹x.

As the shop keeper pays a VAT of ₹6 and a Rate of Sales tax = 7.5%.

∴ 7.5% of x = ₹6.

$\Rightarrow \frac{7.5}{100} \times x = ₹6$

$\Rightarrow x = \frac{600}{7.5}$

$\Rightarrow x = 80$

∴ Rate of discount $= ₹\left(\frac{80}{800} \times 100\right)\% = 10\%$

Solution-09.

Manufacturing company 'P' sells a Desert cooler to a dealer A for ₹8,100. inclusive of tax.

Rate of sales tax = 8%.

(i) the cost price of the cooler for dealer A =

Total Amount Paid - Sales Tax.

Let the amount Paid 'x' then

Sales tax $= ₹\left(\frac{8}{100} \times x\right)$

Amount Paid by dealer A $= x + \frac{8x}{100}$

$\Rightarrow x + \frac{2x}{25} \Rightarrow \frac{27x}{25}$

∴ Purchased cost by dealer A including Tax $= \frac{27x}{25}$

$\Rightarrow 8100 = \frac{27x}{25}$

$\Rightarrow 27x = \frac{25 \times 8100}{1}$

$\Rightarrow x = \frac{25 \times 8100}{27}$

$\Rightarrow x = 7,500$

(ii) The amount of tax received by the Government = x

8% of VAT.

Dealer B sells to Consumer = ₹ 8500 + ₹ 600

= ₹ 9,100.

The amount of tax received by the Government = 8% of ₹9,100

$= \frac{8}{100} \times 9,100$

= ₹ 728.

(iii) The dealer A sells it to a dealer B for ₹ 8,500 + Sale tax

= ₹ 8,500 + ₹ $\frac{8}{100} \times 8500$

= ₹ 9,180.

Dealer B sells to consumer = ₹ 8,500 + ₹ 600

= ₹ 9,100.

Tax paid by consumer = 8% of ₹ 9,100

$= \frac{8}{100} \times 9,100$

= ₹ 728.

The amount which the consumer pays the cooler = ₹ 9,100 + ₹ 728

= ₹ 9,828.

Solution - 10 :-

Marked Price of an Article = ₹ 5,000.

Wholesaler's cost price of An Article = ₹ 5,000 - ₹ $\frac{25}{100}$ × 5,000

= ₹ 5,000 - ₹ 1,250

= ₹ 3,750.

VAT Paid by the wholesaler to Manufacturer = $\frac{8}{100}$ × 3750

= 300

Retailer cost price of An Article = ₹ 5,000 - ₹ $\frac{15}{100}$ × 5000

= ₹ 5,000 - ₹ 750

= ₹ 4,250.

VAT Paid by the Retailer to Wholesaler = ₹ $\frac{8}{100}$ × 4,250

= ₹ 8 × 42.5

= ₹ 340.

Consumer cost Price = ₹ 5,000 as retailer Sells to consumer at marked price.

VAT Paid by the consumer = ₹ $\frac{8}{100}$ × 5,000

= ₹ 400

= ₹ 400.

(i) VAT received from the wholesaler to Government

= ₹ 340 - ₹ 300

= ₹ 40.

(ii) VAT received by Government from retailer = ₹ 400 - ₹ 340

The amount which the consumer pays the cooler = ₹ 9,100 + ₹728

= ₹ 9,828.

Solution-10 :-

Marked Price of an Article = ₹ 5,000.

Wholesaler's cost price of An Article = ₹5,000 - ₹ $\frac{25}{100}$ × 5,000

= ₹ 5,000 - ₹1,250

= ₹ 3,750.

VAT Paid by the wholesaler to Manufacturer = $\frac{8}{100}$ × 3750

= 300

Retailer cost Price of An Article = ₹5,000 - ₹ $\frac{15}{100}$ × 15000

= ₹5,000 - ₹750

= ₹4,250.

VAT Paid by the Retailer to Wholesaler = ₹ $\frac{8}{100}$ × 4,250

= ₹ 8 × 42.5

= ₹340.

Consumer cost Price = ₹5,000 as retailer Sells to consumer at marked price.

VAT Paid by the consumer = ₹ $\frac{8}{100}$ × 5,000

= ₹400

= ₹400.

(i) VAT received from the Wholesaler to Government

= ₹340 - ₹300

= ₹ 40.

(ii) VAT received by Government from retailer = ₹400 - ₹340

= ₹60.

Solution-11:-

Listed Price of goods = ₹160

Cost Price of goods to wholesaler =

Listed Price - 25% discount

$= ₹160 - ₹\frac{25}{100} \times 160$

$= ₹160 - ₹40$

$= ₹140$.

Tax Paid by wholesaler to Manufacturer = $₹\frac{10}{100} \times 120$

(∵ Sales tax on the goods - 10%)

$= ₹12$.

Cost Price of the goods to retailer

= Listed price - 20% discount

$= ₹160 - ₹\frac{20}{100} \times 160$

$= ₹160 - ₹32$

$= ₹128$.

Tax Paid by retailer to wholesaler = $\frac{₹10}{100} \times ₹128$

$= ₹12.80$ Ps.

Cost Price of the consumer = Listed price - 5% discount

$= ₹160 - ₹\frac{5}{100} \times 160$

$= ₹160 - ₹8$

$= ₹152$.

Tax Paid by consumer = $₹\frac{10}{100} \times ₹152$

$= ₹15.20$ Ps.

(i) The VAT paid by the wholesaler =

₹ 12.80 Ps - ₹ 12.00

= ₹ 0.80 Ps.

(ii) The VAT paid by the retailer = VAT paid by consumer - VAT paid by retailer to wholesaler

= ₹ 15.20 - ₹ 12.80

= ₹ 2.40.

(iii) VAT received by the government

= ₹ 12 + ₹ 0.80 + ₹ 2.40

= ₹ 15.20

Solution-12:-

Purchased Price of an Article = ₹ 5,400

cost Price of an Article = x ~~₹ 5400~~ - ₹ $\frac{20}{100} \times$ ₹ 5400

Let x be the cost Price then tax Paid = $\frac{20x}{100}$

$= 0.2x$

Purchased Price = cost Price + Tax Paid

$\Rightarrow x + 0.2x = ₹ 5,400$

$\Rightarrow 1.2x = ₹ 5,400$

$\Rightarrow x = \frac{₹ 5400}{1.2}$

$\Rightarrow x = ₹ 4,500.$

∴ cost Price of an Article = ₹ 4,500.

Let the marked price of an Article be 'y'

given that 10% rebate on the marked price

So marked price = cost price + 10% of 'y'

$$y = 4,500 + \frac{y}{10}$$

$$\Rightarrow y - \frac{y}{10} = 4,500$$

$$\Rightarrow \frac{10y - y}{10} = 4,500$$

$$\Rightarrow 9y = 45,000$$

$$\Rightarrow y = \frac{45,000}{9}$$

$$\Rightarrow y = 5,000.$$

∴ Marked Price of an Article = ₹ 5,000.

Solution-13:-

Cost price of an Article to shopkeeper = ₹ 12,000.

∴ Marked Price of an Article = ₹ 12,000 + ₹ $\frac{25}{100}$ × 12,000

= ₹ 12,000 + ₹ (25 × 120)

= ₹ 12,000 + ₹ 3,000

= ₹ 15,000.

The shop keeper gives 10% discount to Marked Price = ₹ 15,000 - ₹ $\frac{10}{100}$ × ₹ 15,000

= ₹ 15,000 - ₹ 1,500

= ₹ 13,500.

Further off-season discount 5% on Remaining

$= ₹13,500 - ₹\frac{5}{100} \times 13500$

$= ₹13,500 - ₹(0.5 \times 1350)$

$= ₹13,500 - ₹675$

$= ₹12,825.$

(i) The amount of tax customer has to pay

$= ₹\frac{8}{100} \times ₹12,825$

$= ₹1026$

(ii) The final price he has to pay for an Article

= MARemaining price + Tax

= ₹12,825 + ₹1026.

= ₹13,851.

Solution-14:-

Purchased goods worth Rs 9,60,000

Total Paid tax on purchased goods ₹ 62,750

Goods Taxable 6% of 4,00,000 = ₹ $\frac{6}{100}$ × 4,00,000

= ₹ 6 × 4000

= ₹ 24,000

Goods Taxable 12.5% of 4,80,000 = ₹ 12.5% of 4,80,000

= ₹ $\frac{12.5}{100}$ × 4,80,000

= ₹ 12.5 × 4,800

= ₹ 60,000

Exempted goods worth ₹ 95,640.

∴ Tax Liability (under VAT) for this Period

= Total input tax + Total output tax

Total input tax = ₹ 62,750

Total output tax = ₹ 24,000 + ₹ 60,000

= ₹ 84,000.

∴ Tax Liability = ₹ 84,000 - ₹ 62,750

= ₹ 21,250

Solution-15:-

Calculation of input tax:

Tax Rate	purchases	Input taxes.
Floor Tiles (7.5%)	8,00,000	7.5% of 8,00,000 = 60,000
Sanitory Fittings (10%)	7,50,000	10% of 7,50,000 = 75,000
	Total Input Tax =	1,35,000.

Calculation of output tax.

Tax Rate	Purchases	Input taxes
Floor Tiles (7.5%)	8,40,000	7.5% of 8,40,000 = 63,000
Sanitory Fittings (10%)	9,20,000	10% of 9,20,000 = 92,000
	Total output tax =	1,55,000.

Calculation of Adjustment output tax

Tax Rate	Return	Adjustment output Tax
Floor Tiles - 7.5%	60,000	4,500
	Total adjustment output tax →	4,500.

∴ Tax Liability (under VAT) of the firm during the said tax period

= Total input tax - Adjustment output tax - Total input tax

= ₹1,55,000 - ₹4,500 - ₹1,35,000

= ₹20,000 ₹4,500

= ₹15,500.