

Chapter 2

SALES TAX AND VALUE ADDED TAX (VAT)

POINTS TO REMEMBER

1. Calculation of Sales Tax or Trade Tax :

- (i) When no discount is given, then marked or list price of an article becomes the sales price and sales tax is calculated on it.
- (ii) When discount or rebate is given, then first calculate the discount and find the selling price after deducting the discount from marked price and then calculate the sales tax on this selling price.

$$\text{Sales tax} = \text{Rate of sales tax} \times \text{Marked price.}$$

$$\text{Sales price} = \text{Marked price} + \text{Sales tax.}$$

EXERCISE 2-A

Q. 1. The marked price of a watch is Rs. 1375. If sales tax is charged at the rate of 4%, find the total cost of the watch.

Sol. Marked price of the watch = Rs. 1375

Rate of sales tax = 4%

$$\therefore \text{Total sales tax} = \text{Rs. } 1375 \times \frac{4}{100}$$

$$= \text{Rs. } 55$$

$$\therefore \text{Total cost price} = \text{Rs. } 1375 + \text{Rs. } 55$$

$$= \text{Rs. } 1430 \text{ Ans.}$$

Q. 2. The list price of a music system is Rs. 16925. If sales-tax is charged on it at the rate of 6%. Calculate the amount to be paid by a customer for purchasing the music system.

Sol. List price of the music system

$$= \text{Rs. } 16925$$

Rate of sales tax = 6%

$$\therefore \text{Total sales-tax} = 16925 \times \frac{6}{100}$$

$$= \text{Rs. } 1015.50$$

$$\text{Hence, cost price} = \text{Rs. } 16925 + \text{Rs. } 1015.50$$

$$= \text{Rs. } 17940.50 \text{ Ans.}$$

Q. 3. The owner of a furnishing gallery purchased the following goods from a wholesale dealer :

Item	Quantity	Rate
Pillows	6	Rs. 188 each
Pillow covers	25 pairs	Rs. 43 per pair
Bed-sheets	14	Rs. 216 each
Lace	205 metres	Rs. 6.20 per metre
Curtain hooks	48 dozen	Rs. 14 per dozen

If the sales-tax is charged at 8%, find the total amount paid by him.

Sol. Price of 6 pillows = $6 \times 188 = \text{Rs. } 1128$

Price of 25 pairs pillow covers = $43 \times 25 = \text{Rs. } 1075$

Price of 14 Bed-sheets = $216 \times 14 = \text{Rs. } 3024$

Price of 205 metres lace = $6.20 \times 205 = \text{Rs. } 1271$

Price of 48 dozen curtain hooks = $14 \times 48 = \text{Rs. } 672$

Total Amount

$$= \text{Rs. } (1128 + 1075 + 3024 + 1271 + 672)$$

$$= \text{Rs. } 7170$$

$$\text{Rate of sales-tax} = 8\%$$

$$\therefore \text{Total sales-tax} = 7170 \times \frac{8}{100}$$

$$= \text{Rs. } 573.60$$

Total amount to be paid

$$= \text{Rs. } 7170 + \text{Rs. } 573.60$$

$$= \text{Rs. } 7743.60 \text{ Ans.}$$

Q. 4. Sameer bought the following items from a departmental store :

- (i) Medicines worth of Rs. 456 ;
- (ii) Cosmetics worth of Rs. 325;
- (iii) Stationery worth of Rs. 240;
- (iv) Bakery products worth of Rs. 170.

If the sales tax is charged at the rate of 5% on medicines ; 8% on cosmetics ; 6% on stationery and 4% on bakery products, find the total amount paid by Sameer.

Sol. Price of medicines = Rs. 456

Price of cosmetics = Rs. 325

Price of stationery = Rs. 240

Price of Bakery products = Rs. 170

Sales tax on medicines = 5%

Sales tax on cosmetics = 8%

Sales tax on stationery = 6%

and sales tax on bakery products = 4%

\therefore Sales tax on medicine

$$= \text{Rs. } 456 \times \frac{5}{100} = \text{Rs. } 22.80$$

$$\text{Sales tax on cosmetics} = \text{Rs. } 325 \times \frac{8}{100}$$

$$= \text{Rs. } 26.00$$

$$\text{Sales tax on stationery} = \text{Rs. } 240 \times \frac{6}{100}$$

$$= \text{Rs. } 14.40$$

Sales tax on bakery products

$$= \text{Rs. } 170 \times \frac{4}{100} = \text{Rs. } 6.80$$

$$\text{Total marked price} = \text{Rs. } 456 + \text{Rs. } 325$$

$$+ \text{Rs. } 240 + \text{Rs. } 170$$

$$= \text{Rs. } 1191$$

$$\text{Total sales tax} = \text{Rs. } 22.80 + 26.00$$

$$+ \text{Rs. } 14.40 + \text{Rs. } 6.80$$

$$= \text{Rs. } 70.00$$

$$\text{Total cost price of the bill} = \text{Rs. } 1191$$

$$+ \text{Rs. } 70$$

$$= \text{Rs. } 1261 \text{ Ans.}$$

Q. 5. Roshan buys a moped with a marked price of Rs. 12500. He gets a rebate of 10% on it. After getting the rebate, sales tax is charged at the rate of 6%. Find the amount he will to pay for the moped.

Sol. Marked price of the moped = Rs. 12500

Rebate = 10%

\therefore Net price after rebate

$$= \text{Rs. } \frac{12500 (100 - 10)}{100}$$

$$= \text{Rs. } 12500 \times \frac{90}{100} = \text{Rs. } 11250$$

Rate of sales tax = 6%

$$\therefore \text{Total sales tax} = \text{Rs. } 11250 \times \frac{6}{100}$$

$$= \text{Rs. } 675$$

\therefore Cost price of the moped

$$= \text{Rs. } 11250 + \text{Rs. } 675$$

$$= \text{Rs. } 11925 \text{ Ans.}$$

Q. 6. Anurag buys goods worth of Rs. 5500. He gets a rebate of 5% on it. If sales tax is charged at the rate of 8%, find the amount he will have to pay for the goods.

Sol. List price of the goods = Rs. 5500

Rate of rebate = 5%

∴ Net price after rebate

$$= \text{Rs.} \frac{5500(100-5)}{100}$$

$$= \text{Rs.} 5500 \times \frac{95}{100} = \text{Rs.} 5225$$

Rate of sales tax = 8%

∴ Total sales tax

$$= \text{Rs.} 5225 \times \frac{8}{100} = \text{Rs.} 418$$

∴ Cost price of the goods

$$= \text{Rs.} 5225 + \text{Rs.} 418 = \text{Rs.} 5643 \text{ Ans.}$$

Q. 7. Prem bought a suitcase worth Rs. 2800.

If he got a discount of $7\frac{1}{2}\%$ on it and paid sales-tax at the rate of $7\frac{1}{2}\%$, find the final amount he paid for the suitcase.

Sol. List price of a suitcase = Rs. 2800

$$\text{Discount} = 7\frac{1}{2}\% \text{ of Rs. } 2800$$

$$= \text{Rs.} \left[2800 \times \frac{15}{2 \times 100} \right]$$

$$= \text{Rs.} 210$$

Cost of the suitcase after discount

$$= \text{Rs.} (2800 - 210) = \text{Rs.} 2590$$

$$\text{Sales-tax} = 7\frac{1}{2}\% = \frac{15}{2}\% \text{ of Rs. } 2590$$

$$= \text{Rs.} \left[2590 \times \frac{15}{2 \times 100} \right] = \text{Rs.} 194.25$$

∴ Final amount to be paid for the suitcase

$$= \text{Rs.} (2590 + 194.25) = \text{Rs.} 2784.25 \text{ Ans.}$$

Q. 8. The catalogue price of a computer set is Rs. 45000. The shopkeeper gives a discount of 7% on the listed price. He gives a further off-season discount of 4% on the balance. But sales tax at 8% is charged on the balance amount. Find :

(i) the amount of sales tax a customer has to pay.

(ii) the final price he has to pay for the computer set. (2005)

Sol. Catalogue price of the computer set = Rs. 45000

Rate of first discount = 7%

$$\therefore \text{Amount of discount} = \text{Rs.} 45000 \times \frac{7}{100}$$

$$= \text{Rs.} 3150$$

Amount after discount,

$$= \text{Rs.} 45000 - \text{Rs.} 3150$$

$$= \text{Rs.} 41850$$

Rate of off-season discount = 4%

∴ Amount of second discount,

$$= \text{Rs.} 41850 \times \frac{4}{100}$$

$$= \text{Rs.} 1674$$

Net price of computer = Rs. 41850 - Rs. 1674

$$= \text{Rs.} 40176$$

Rate of sale tax charged = 8%

$$(i) \therefore \text{Amount of sale tax} = \text{Rs.} 40176 \times \frac{8}{100}$$

$$= \text{Rs.} 3214.08$$

(ii) Final price of the computer

$$= \text{Rs.} 40176 + \text{Rs.} 3214.08$$

$$= \text{Rs.} 43390.08 \text{ Ans.}$$

Q. 9. The sales-price of a sofa-set is Rs. 17985, inclusive of sales tax. If the rate of sales-tax is 9% of the list price, find the list-price of the sofa-set.

Sol. Sales price of sofa-set = Rs. 17985

Rate of sales-tax = 9%

Let the list price = Rs. 100

Sales tax = 9%

$$\therefore \text{Sales price} = \text{Rs.} 100 + 9 = \text{Rs.} 109$$

If sales price is Rs. 109, then list price = Rs. 100

If sales price is Rs. 17985, then list price

$$= \text{Rs.} \frac{100}{109} \times 17985 = \text{Rs.} 16500 \text{ Ans.}$$

Q. 10. A colour T.V. is marked for sale at Rs. 17600, which includes sales-tax at 10%. Calculate the sales-tax in rupees. (2000)

Sol. Marked price of colour T.V. = Rs. 17600

Let the list price = x

Rate of sales-tax = 10%

$$\therefore \text{Sale price} = x \times \frac{100 + 10}{100} = x \times \frac{110}{100}$$

$$\therefore \frac{110}{100}x = 17600$$

$$x = 17600 \times \frac{100}{110} = \text{Rs. } 16000$$

\therefore Sales-tax in rupees

$$= \text{Rs. } 17600 - \text{Rs. } 16000 = \text{Rs. } 1600 \text{ Ans.}$$

Q. 11. A machine is bought for Rs. 33723 including sales tax. If sales-tax is being charged at 8% of the basic price, find its basic price.

Sol. Cost price of machine = Rs. 33723

Rate of sales tax = 8%

Let basic price = Rs. 100

Then cost price = Rs. 100 + 8 = Rs. 108

If cost price is Rs. 105, then basic price = Rs. 100 and if cost price is Rs. 33723, then basic price

$$= \text{Rs. } \frac{33723 \times 100}{108} = \text{Rs. } 31225 \text{ Ans.}$$

Q. 12. Deepak bought a jacket for Rs. 988, including 4% sales-tax, and a pair of shoes for Rs. 1417.50, including $12\frac{1}{2}\%$ sales-tax.

Calculate:

(i) The basic price of the jacket and shoes together;

(ii) The total amount of sales-tax he had to pay on both the items.

Sol. (i) Sales price of jacket = Rs. 988

Rate of sales-tax = 4%

Let, list price of jacket = x

$$\therefore \text{Sales tax} = x \times \frac{4}{100} = \frac{4x}{100}$$

$$\text{Sale price} = x + \frac{4x}{100} = \frac{104x}{100}$$

$$\therefore \frac{104x}{100} = 988$$

$$x = \frac{988 \times 100}{104} = \frac{98800}{104} = 950$$

Let, list price of pair of shoes = x

$$\text{Sales-tax} = x \times \frac{25}{2 \times 100} = \frac{25x}{200}$$

$$\therefore \text{Sale price} = x + \frac{25x}{200} = \frac{225x}{200}$$

$$\frac{225x}{200} = \text{Rs. } 1417.50$$

$$x = \frac{1417.50 \times 200}{225} = \frac{141750 \times 200}{100 \times 225} = \text{Rs. } 1260$$

$$\text{Total basic (list price)} = \text{Rs. } 950 + \text{Rs. } 1260 = \text{Rs. } 2210 \text{ Ans.}$$

(ii) Amount of sales-tax he had to pay on both items.

$$= \text{Rs. } 988 + \text{Rs. } 1417.50 - \text{Rs. } 2210$$

$$= \text{Rs. } 2405.50 - \text{Rs. } 2210 = \text{Rs. } 195.50 \text{ Ans.}$$

Q. 13. Mr. Roy purchased a scooter which was quoted at Rs. 32600. The dealer charged sales tax on it at the rate of 10%. As Mr. Roy wanted to take the scooter outside the state, the dealer charged 2% extra as central sales tax. Find the amount he had to pay for the scooter.

Sol. List price of the scooter = Rs. 32600

Rate of sales tax = 10%

Rate of central sales tax = 2%

$$\therefore \text{Total tax} = \text{Rs. } 32600 \times 10\% + \text{Rs. } 32600 \times 2\%$$

$$= \text{Rs. } 32600 \times 12\% = \text{Rs. } \frac{32600 \times 12}{100} = \text{Rs. } 3912$$

$$\therefore \text{Cost price} = \text{Rs. } 32600 + \text{Rs. } 3912 = \text{Rs. } 36512$$

Ans.

Q. 14. The cost of a fan including sales-tax is Rs. 918. If the list price of the fan is Rs. 850, find the rate of sales-tax.

Sol. Cost price = Rs. 918

Marked price = Rs. 850

\therefore Amount of total sales-tax

$$= \text{Rs. } 918 - \text{Rs. } 850 = \text{Rs. } 68$$

$$\therefore \text{Rate of sales-tax} = \frac{\text{Sales - tax} \times 100}{\text{M.P.}}$$

$$= \frac{68 \times 100}{850} = 8\% \text{ Ans.}$$

Q. 15. Sajal paid Rs. 27 as sales-tax on a bottle of olive oil with Rs. 225 as marked price.

Calculate the rate of sales tax.

Sol. Marked price of bottle = Rs. 225

Amount of sales tax = Rs. 27

\therefore Rate of sales tax

$$= \frac{\text{Total sales tax} \times 100}{\text{M.P.}}$$

$$= \frac{27 \times 100}{225} = 12\% \text{ Ans.}$$

Q. 16. The cost of an almirah is Rs. 5538, inclusive of Rs. 213 as sales tax. Find :

(i) the list price of the almirah.

(ii) the rate of sales tax.

Sol. Cost price of almirah = Rs. 5538

Sales tax = Rs. 213

(i) \therefore List price = Rs. 5538 - Rs. 213
= Rs. 5325

(ii) Rate of sales tax

$$= \frac{\text{Total sales tax} \times 100}{\text{M.P.}}$$

$$= \frac{213 \times 100}{5325} = 4\% \text{ Ans.}$$

Q. 17. Kiran purchases an article for Rs. 5,400 which includes 10% rebate on the marked price and 20% sales tax on the remaining price. Find the market price of the article.

Sol. Let marked price of the article be Rs. x .

Then, rebate = 10% of Rs. x = Rs. $\frac{x}{10}$

Price after rebate = Rs. $\left(x - \frac{x}{10}\right)$ = Rs. $\frac{9x}{10}$

Sales tax = 20% of Rs. $\frac{9x}{10}$ = Rs. $\frac{9x}{10} \times \frac{20}{100}$

$$= \text{Rs. } \frac{9x}{50}$$

\therefore SP of the article = Rs. $\left(\frac{9x}{10} + \frac{9x}{50}\right)$ =

$$\frac{45x + 9x}{50} = \text{Rs. } \frac{54x}{50} = \text{Rs. } \frac{27x}{25}$$

But SP = Rs. 5400 (given)

$$\therefore \frac{27x}{25} = 5400$$

$$\Rightarrow x = \frac{5400 \times 25}{27} = 200 \times 25 = 5000$$

Hence, market price of the article is Rs. 5000

Q. 18. Vivek purchased a computer for Rs. 34164 which includes 10% rebate on the marked price and then 4% sales tax on the remaining price. Find the marked price of the computer.

Sol. Cost price of the computer = Rs. 34164

Rebate = 10%

and rate of sales tax = 4%

Let marked price = Rs. x

Then remaining price after rebate

$$= \frac{x(100 - 10)}{100} = \frac{9x}{10}$$

$$\text{Sales tax} = \frac{9x}{10} \times 4\% = \frac{9x + 4}{10 \times 100}$$

$$= \text{Rs. } \frac{9x}{250}$$

$$\therefore \text{Cost price} = \frac{9x}{10} + \frac{9x}{250} = \frac{225x + 9x}{250}$$

$$= \frac{234}{250}x$$

According to the condition,

$$\frac{234}{250}x = \text{Rs. } 34164$$

$$\therefore x = \text{Rs. } \frac{34164 \times 250}{234} = \text{Rs. } 36500 \text{ Ans.}$$

Q. 19. Radha buys an electric toaster for Rs. 712.80 which includes two successive discounts of 10% and 4% respectively on the marked price and then 10% sales tax on the remaining price. Find the marked price of the toaster.

Sol. Let marked price of toaster = Rs. x

Rate of first discount = 10%

\therefore Remaining price

$$= \text{Rs. } \frac{x \times (100 - 10)}{100} = \text{Rs. } \frac{90x}{100} = \text{Rs. } \frac{9x}{10}$$

Rate of second discount = 4%

then remaining price

$$= \text{Rs. } \frac{9x}{10} \times \frac{(100-4)}{100} = \frac{9x \times 96}{10 \times 100} = \frac{864x}{1000}$$

Rate of sales tax = 10%

$$\therefore \text{Sales tax} = \frac{864x}{1000} \times \frac{10}{100} = \text{Rs. } \frac{864x}{10000}$$

$$\text{Cost price} = \frac{864x}{1000} + \frac{864x}{10000}$$

$$= \frac{8640x + 864x}{10000} = \frac{9504x}{10000}$$

According to the condition,

$$\frac{9504}{10000}x = \frac{71280}{100} \Rightarrow x = \frac{71280}{100} \times \frac{10000}{9504}$$

$$\Rightarrow x = \frac{7128000}{9504} = \text{Rs. } 750$$

\therefore List price = Rs. 750 **Ans.**

Q. 20. Mohit wants to buy a coat whose marked price is Rs. 1890 and sales tax at the rate of 8% is to be charged on it. He tells the shopkeeper to reduce the marked price to such an extent that he has not to pay more than Rs. 1890 including sales tax. Calculate the reduction needed in the marked price of the coat.

Sol. Marked price of coat = Rs. 1890

Rate of sales tax = 8%

Let rate of discount = $x\%$

$$\therefore \text{Reduced price Rs.} = \frac{1890(100-x)}{100}$$

$$\text{Amount of sales tax} = \frac{1890(100-x)}{100} \times \frac{8}{100}$$

$$= \frac{189(100-x)}{125}$$

$$\therefore \text{Cost price} = \text{Rs. } \frac{189(100-x)}{125}$$

$$+ \text{Rs. } \frac{1890(100-x)}{100}$$

$$= \text{Rs. } 189(100-x) \left[\frac{1}{125} + \frac{1}{10} \right]$$

$$= 189(100-x) \times \frac{(2+25)}{250} = \frac{189 \times 27(100-x)}{250}$$

According to the condition,

$$\frac{189 \times 27(100-x)}{250} = 1890$$

$$\Rightarrow 189 \times 27(100-x) = 1890 \times 250$$

$$100-x = \frac{2500}{27}$$

$$x = 100 - \frac{2500}{27} = \frac{2700-2500}{27} = \frac{200}{27}$$

$$\text{Amount of Reduction} = \frac{200}{27} \% \text{ of Rs. } 1890$$

$$= \text{Rs. } 1890 \times \frac{200}{27 \times 100} = \text{Rs. } 140$$

\therefore Amount of Reduction = Rs. 140 **Ans.**

Q. 21. The marked price of a cooler is Rs. 8568 and sales tax at the rate of 12% is to be charged on it. Sonal wants to buy it for Rs. 8568 including sales tax. What must be the revised marked price for it?

Sol. Marked price of cooler = Rs. 8568

Rate of sales tax = 12%

Let rate of discount = $x\%$

$$\therefore \text{Total discount} = \text{Rs. } \frac{8568 \times x}{100} = \frac{8568x}{100}$$

$$\text{Reduced price} = \text{Rs. } 8568 - \frac{8568x}{100}$$

$$= \frac{856800 - 8568x}{100} = \frac{8568(100-x)}{100}$$

Rate of sales tax = 12%

\therefore After paying sales tax,

$$\text{cost price} = \frac{8568(100-x)(100+12)}{100 \times 100}$$

$$= \frac{8568 \times 112 \times (100-x)}{10000}$$

According to the condition,

$$\frac{8568 \times 112 \times (100-x)}{10000} = 8568$$

$$\Rightarrow 100-x = \frac{8568 \times 10000}{8568 \times 112} = \frac{10000}{112}$$

$$x = 100 - \frac{10000}{112} = \frac{11200-10000}{112} = \frac{1200}{112}$$

$$\therefore \text{Reduced price} = \frac{8568 \left(100 - \frac{1200}{112} \right)}{100}$$

$$= \text{Rs. } 8568 \times \frac{(11200 - 1200)}{112 \times 100} = \text{Rs. } \frac{8568 \times 10000}{112 \times 100}$$

$$= \text{Rs. } 7650 \text{ Ans.}$$

Q. 22. The price of a food processor inclusive of sales-tax of 5% is Rs. 6930. If the sales tax is increased to 8%, how much more does the customer pay for it?

Sol. Let, the marked price of food processor be Rs. x .

Then, sales tax = 5% of Rs. x

$$= \text{Rs. } \left[x \times \frac{5}{100} \right] = \frac{5x}{100}$$

\therefore Total cost of food processor (including sales tax)

$$= \text{Rs. } \left[x + \frac{5x}{100} \right] = \text{Rs. } \frac{105x}{100}$$

$$\therefore \frac{105x}{100} = 6930 \Rightarrow x = \frac{6930 \times 100}{105} = 6600$$

\therefore Marked price of Food Processor = Rs. 6600
Sales-tax at new rate = 8% of Rs. 6600

$$= \text{Rs. } \left[6600 \times \frac{8}{100} \right] = \text{Rs. } 528$$

New price to be paid = Rs. (6600 + 528) = Rs. 7128

Increase in price = Rs. (7128 - 6930) = Rs. 198

Hence, the customer has to pay Rs. 198 more.

Q. 23. The price of a laser printer, including 7% sales-tax, is Rs. 17334. How much less does a customer pay for it, if the sales-tax on it is reduced to 4%?

Sol. Let the marked price of laser printer be Rs. x

Then, sales-tax = 7% of Rs. x

$$= \text{Rs. } \left[x \times \frac{7}{100} \right] = \text{Rs. } \frac{7x}{100}$$

\therefore Total cost of laser printer (including sales-tax)

$$= \text{Rs. } \left[x + \frac{7x}{100} \right] = \text{Rs. } \frac{107x}{100}$$

$$\therefore \frac{107x}{100} = 17334 \Rightarrow x = \frac{17334 \times 100}{107} = 16200$$

\therefore Marked price of laser printer = Rs. 16200

Sales-tax at new rate = 4% of Rs. 16200

$$= \text{Rs. } \left[16200 \times \frac{4}{100} \right] = \text{Rs. } 648$$

New price to be paid = Rs. (16200 + 648)
= Rs. 16848

\therefore Increase in price = Rs. (17334 - 16848)
= Rs. 486

Hence, the customer has to pay Rs. 486 less.

EXERCISE 2 (B)

Q.1. A shopkeeper bought a TV at a discount of 30% of the listed price of Rs. 24,000. The shopkeeper offers a discount of 10% of the listed price to his customer. If the VAT (Value Added Tax) is 10%. Find :

(i) the amount paid by the customer.

(ii) the VAT to be paid by the shopkeeper.

Sol. List price = Rs. 24000, Discount = 30%

$$\text{S.P.} = 24000 - \frac{30}{100} \times 24000$$

$$= \text{Rs. } 24000 - 7200 = \text{Rs. } 16800$$

$$\text{VAT} = \text{Rs. } 16800 \times \frac{10}{100} = \text{Rs. } 1680$$

$$\text{S.P. to customer} = 24000 - 24000 \times \frac{10}{100}$$

$$= 24000 - 2400 = \text{Rs. } 21600$$

$$\text{VAT} = \frac{10}{100} \times 21600 = \text{Rs. } 2160$$

(i) Amount paid by customer

$$= \text{Rs. } 21600 + 2160 = \text{Rs. } 23760$$

(ii) Total VAT to be paid by shopkeeper

$$= \text{Rs. } 2160 - 1680 = \text{Rs. } 480$$

Q.2. A shopkeeper bought a T.V. set with a marked price of Rs. 4500, at a discount of 15%. The rate of sales tax is 12%. He sold the T.V. set to a customer at a discount of 5% on the marked price. Find:

(i) the price which the customer paid for the T.V. set;

(ii) the VAT paid by the shopkeeper.

Sol. Marked price of the T.V. set = Rs. 4500

Discount to shopkeeper = 15%

$$\therefore \text{S.P. of the T.V. set} = \frac{\text{M.P.} \times (100 - \text{Discount}\%)}{100}$$

$$= \text{Rs. } \frac{4500 \times (100 - 15)}{100} = \text{Rs. } \frac{4500 \times 85}{100} = \text{Rs. } 3825$$

Rate of S.T. = 12%

$$\text{Total S.T.} = \frac{3825 \times 12}{100} = \text{Rs. } 459$$

Total price paid by the shopkeeper
= Rs. 3825 + 459 = 4284

Discount to the customer on the M.P. = 5%

$$\therefore \text{Sale price} = \text{Rs. } \frac{4500 \times (100 - 5)}{100}$$

$$= \text{Rs. } \frac{4500 \times 95}{100} = \text{Rs. } 4275$$

S.T. = 12%

$$\text{Total S.T.} = \text{Rs. } \frac{4275 \times 12}{100} = \text{Rs. } 513$$

(i) Total price paid by the customer
= Rs. 4275 + 513 = Rs. 4788

(ii) and amount of VAT paid by the shopkeeper
= Rs. 513 - Rs. 459 = Rs. 54

Hence, the customer has to pay Rs. 486 less.

Q. 3. A trading company M/s Allied Chemicals deals in three chemical products :

Acetone taxable at 4%, **Essence** taxable at 12.5% and **Naphtha** taxable at 20%. The company purchased Acetone worth Rs. 1,50,000 plus tax, Essence worth Rs. 2,00,000 plus tax and Naphtha worth Rs. 80,000 plus tax, in the tax period ended 30th June 2006. Compute the tax liability of the company in this tax period if its sales turnovers for Acetone, Essence and Naphtha are Rs. 1,75,000, Rs. 2,50,000 and Rs. 92,000 respectively.

Sol. Rate of tax on Acetone = 4%

Rate of tax on Essence = 12.5%

and rate of tax on Naphtha = 20%

Cost of Acetone = Rs. 1,50,000

Cost of Essence = Rs. 2,00,000

and cost of Naphtha = Rs. 80,000

\therefore Input tax = 4% of 150,000 + 12.5% of 200,000 + 20% of 80,000

$$= \text{Rs. } 6000 + \text{Rs. } 25000 + \text{Rs. } 16000$$

$$= \text{Rs. } 47000$$

Turnover value of Essence = Rs. 250,000
and turnover value of Naphtha = Rs. 92,000

\therefore Output tax = 4% of Rs. 1,75,000 + 12.5% of Rs. 2,50,000 + 20% of Rs. 92,000

$$= \text{Rs. } (7000 + 31250 + 18400) = \text{Rs. } 56650$$

\therefore Liability of tax = output tax - input tax
= Rs. 56650 - Rs. 47000 = Rs. 9650 Ans.

Q. 4 In the tax period ended March 2006, M/s Daula Ram Textiles purchased Silk Textiles (taxable at 4%) worth Rs. 2,25,000 and Handloom Textiles (tax exempted) worth Rs. 1,85,000. During this tax period, the firm sold Silk Textiles worth Rs. 2,45,000 and Handloom Textiles worth Rs. 1,78,000. However, Silk Textiles worth Rs. 10,000 sold by the firm were returned by the buyer during the same tax period. Calculate the Net Tax payable (under VAT) by this firm. Assume all the purchases and sales data provided above to be exclusive of the taxes.

Sol. Cost of Silk Textiles = Rs. 2,25,000

Rate of tax = 4%

$$\therefore \text{Total tax} = \text{Rs. } 2,25,000 \times \frac{4}{100} = \text{Rs. } 9000$$

Handloom textiles = Rs. 1,85,000

Tax = nil

$$\therefore \text{Input tax} = \text{Rs. } 9000 + 0 = \text{Rs. } 9000$$

Sale of Silk Textiles = Rs. 2,45,000

Rate of tax = 4%

$$\therefore \text{Total tax} = 245000 \times \frac{4}{100} = \text{Rs. } 9800$$

Silk Textiles returned = Rs. 10,000

$$\therefore \text{Tax} = \text{Rs. } 10000 \times \frac{4}{100} = \text{Rs. } 400$$

Sale of Handloom textile = Rs. 1,78,000

Tax = nil

$$\therefore \text{Output tax} = \text{Rs. } 9800 - 400 = \text{Rs. } 9400$$

\therefore Net tax payable under VAT

$$= \text{Rs. } 9400 - \text{Rs. } 9000 = \text{Rs. } 400$$