

EXERCISE 1

1. Gauri buys garments worth 1730. If the sales tax is charged at the rate of 5%, find the amount she has to pay for the garments.

Solution:

Given:

SP of garments = ₹ 1730

Rate of sales tax = 5%

So now, let us find the amount of sales tax

$$\begin{aligned}\text{Amount of sales tax} &= (1730 \times 5) / 100 \\ &= 8650 / 100 \\ &= ₹ 86.50\end{aligned}$$

$$\begin{aligned}\therefore \text{Total price for the garments} &= 1730 + 86.50 \\ &= ₹ 1816.50\end{aligned}$$

2. The list price of a washing machine is 17650. If the sales tax is chargeable at the rate of 8%, find the amount the buyer has to pay for it.

Solution:

Given:

List price of washing machine = ₹ 17650

Rate of sales tax = 8%

So now, let us find the amount of sales tax

$$\begin{aligned}\text{Amount of sales tax} &= (17650 \times 8) / 100 \\ &= ₹ 1412\end{aligned}$$

$$\begin{aligned}\therefore \text{Total price of washing machine} &= 17650 + 1412 \\ &= ₹ 19062\end{aligned}$$

3. Tinku purchased the following stationery goods from a shop:

Item	Quantity	Rate
Pens	6	₹5.50 each
Pencils	2 dozens	₹22 per dozen
Copies	3 dozens	₹108 per dozen
Rubbers	10	₹1.08 each

If the sales tax is charged at 6%, find the total amount paid by him.

Solution:

Number of pens given = 6

Price of 1 pen is given as = ₹ 5.50

Price of 6 pens = $6 \times 5.50 = ₹ 33$

Number of pencils given = 2dozen

Price of 1dozen pencils is given as = ₹ 22

Price of 2dozen pencils = $2 \times 22 = ₹44$

Number of copies given = 3dozen

Price of 1dozen copies is given as = ₹ 108

Price of 3dozen copies = $3 \times 108 = ₹324$

Number of rubbers given = 10

Price of 1 rubber is given as = ₹ 1.08

Price of 10 rubbers = $10 \times 1.08 = ₹10.8$

So, total amount = $33 + 44 + 324 + 10.8 = ₹411.80$

Rate of sales tax = 6%

Total sales tax = $(411.80 \times 6)/100$
= ₹24.71

∴ Total amount to be paid = $411.80 + 24.71$
= ₹436.51

4. Ritu buys the following goods from a departmental store:

Crockery worth ₹2375

Readymade garments worth ₹1540

Utensils worth ₹685

Eatables worth ₹245

If the sales tax is chargeable at the rate of 10% on crockery, 6% on garments, 5% on utensils and eatables are exempted from sales tax, find the total amount to be paid by Ritu.

Solution:

(i) Crockery worth ₹2375

It is given that price of crockery = ₹2375

Rate of sales tax = 10%

Amount of sales tax = $(2375 \times 10)/100$
= ₹237.50

So, total price of crockery = $2375 + 237.50$
= ₹2612.50

(ii) Readymade garments worth ₹1540

It is given that price of readymade garments = ₹1540

Rate of sales tax = 6%

$$\begin{aligned}\text{Amount of sales tax} &= (1540 \times 6) / 100 \\ &= ₹92.4\end{aligned}$$

$$\begin{aligned}\text{So, total price of readymade garments} &= 1540 + 92.4 \\ &= ₹1632.4\end{aligned}$$

(iii) Utensils worth ₹685

It is given that price of utensils = ₹685

Rate of sales tax = 5%

$$\begin{aligned}\text{Amount of sales tax} &= (685 \times 5) / 100 \\ &= ₹34.25\end{aligned}$$

$$\begin{aligned}\text{So, total price of utensils} &= 685 + 34.25 \\ &= ₹719.25\end{aligned}$$

(iv) Eatables worth ₹245

It is given that price of eatables = ₹245

$$\begin{aligned}\therefore \text{Total amount to be paid by ritu is} &= 2612.50 + 1632.4 + 719.25 + 245 \\ &= ₹5209.15\end{aligned}$$

5. Atul purchased a motor cycle which was quoted at 23500. The shopkeeper charged sales tax at the rate of 10%. As Atul wanted to take the motor cycle outside the state, the shopkeeper charged 2% extra as central sales tax. Find the amount Atul had to pay for the motorcycle.

Note: Central sales tax is charged on the list price.

Solution:

Given:

$$\text{List price of motor cycle} = ₹23500$$

$$\text{Rate of sales tax} = 10\%$$

$$\text{Rate of central sales tax} = 2\%$$

$$\begin{aligned}\text{Total sales tax} &= (23500 \times 12) / 100 \\ &= ₹2820\end{aligned}$$

$$\begin{aligned}\therefore \text{Total price of the motor cycle} &= 23500 + 2820 \\ &= ₹263260\end{aligned}$$

6. Tarun bought an article for 8000 and spent 1000 for transportation. He marked the article at 11700 and sold it to a customer. If the customer had to pay 10% sales tax, find

(i) the customer's price.

(ii) Tarun's profit percent.

Solution:

Given:

Tarun bought the article for = ₹8000

Tarun spent ₹1000 on transportation.

So, total cost Tarun spent = cost of article + transportation
 $= 8000 + 1000$
 $= ₹ 9000$

Marked Price = ₹ 11700

Sales Tax% = 10%

Sale Tax = $(11700 \times 10) / 100$
 $= ₹ 1170$

(i) The customer's price = $11700 + 1170$
 $= ₹ 12870$

(ii) Profit = $11700 - 9000$
 $= ₹ 2700$

Tarun's profit% = $(2700 \times 100) / 9000$
 $= 30\%$

EXERCISE 2

1. A manufacturing company sells a T.V. to a trader A for ₹ 18000. Trader A sells it to a trader B at a point of ₹ 750 and trader B sells it to a consumer at a profit of ₹ 900. If the rate of sales tax (under VAT) is 10%, find

(i) the amount of tax received by the Government.

(ii) the amount paid by the consumer for the T.V.

Solution:

Given:

Selling price of a T.V. to a trader A = ₹ 18000

Rate of VAT tax = 10%

$$\begin{aligned}\text{Amount of VAT} &= (18000 \times 10) / 100 \\ &= 1800\end{aligned}$$

Gain of A = ₹ 750

$$\begin{aligned}\text{VAT on gain} &= (750 \times 10) / 100 \\ &= ₹ 75\end{aligned}$$

Gain of B = ₹ 900

$$\begin{aligned}\text{VAT on gain} &= (900 \times 10) / 100 \\ &= ₹ 90\end{aligned}$$

$$\begin{aligned}\text{(i) Total tax received by Government} &= (1800 + 75 + 90) \\ &= ₹ 1965\end{aligned}$$

$$\begin{aligned}\text{(ii) Amount paid by the consumer for the T.V.} &= ₹ 18000 + 750 + 900 + \text{tax } 1965 \\ &= ₹ 21615\end{aligned}$$

2. A manufacturer sells a washing machine to a wholesaler for ₹ 15000. The wholesaler sells it to a trader at a profit of ₹ 1200 and the trader sells it to a consumer at a profit of ₹ 1800. If the rate of VAT is 8%, find :

(i) The amount of VAT received by the State Government on the sale of this machine from the manufacturer and the wholesaler.

(ii) The amount that the consumer pays for the machine.

Solution:

Given:

$$\begin{aligned}\text{Total amount under VAT} &= ₹ 15000 + 1200 + 1800 \\ &= ₹ 18000\end{aligned}$$

$$\begin{aligned}\text{(i) Amount of VAT received} &= 8\% \text{ of } ₹ 18000 \\ &= (8 \times 18000) / 100 \\ &= 1440\end{aligned}$$

(ii) Amount the consumer pays for the machine = ₹ 18000 + ₹ 1440
= ₹ 19440

3. A manufacturer buys raw material for ₹ 40000 and pays sales tax at the rate of 4%. He sells the ready stock for ₹ 78000 and charges sales tax at the rate of 7.5%. Find the VAT paid by the manufacturer.

Solution:

Given:

Cost price of a raw material = ₹ 40000

Rate of sales tax = 4%

Amount of sales tax = $(40000 \times 4) / 100$
= ₹ 1600

Manufacturer sells the stock at = ₹ 78000

Rate of sales tax = 7.5%

Amount of sales tax = $(78000 \times 7.5) / 100$
= ₹ 5850

∴ VAT paid by the manufacturer = ₹ 5850 - ₹ 1600
= ₹ 4250

4. A shopkeeper buys a camera at a discount of 20% from the wholesaler, the printed price of the camera being ₹ 1600 and the rate of sales tax is 6%. The shopkeeper sells it to the buyer at the printed price and charges sales tax at the same rate. Find

(i) the price at which the camera can be bought.

(ii) the VAT (Value Added Tax) paid by the shopkeeper.

Solution:

Given:

Printed price of the camera (MP) = ₹ 1600

Rate of discount = 20%

By using the formula,

Sale price = $[MP \times (100 - D\%) / 100]$
= $[1600 \times (100 - 20) / 100]$
= $[1600 \times 80] / 100$
= ₹ 1280

Rate of sales tax = 6%

Amount of sales tax = $(1280 \times 6) / 100$
= ₹ 76.80

In second case:

$$\text{Sale price} = ₹1600$$

$$\text{Rate of sales tax} = 6\%$$

$$\text{Amount of sales tax} = (1600 \times 6) / 100$$

$$= ₹96$$

$$\text{(i) price of camera} = 1600 + 96$$

$$= ₹1696$$

$$\text{(ii) VAT paid by the shopkeeper} = 96 - 76.80$$

$$= ₹19.20$$

5. The printed price of an article is ₹ 60000. The wholesaler allows a discount of 20% to the shopkeeper. The shopkeeper sells the article to the customer at the printed price. Sales tax (under VAT) is charged at the rate of 6% at every stage.

Find:

(i) the cost to the shopkeeper inclusive of tax.

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

(iii) the cost to the customer inclusive of tax.

Solution:

Given:

$$\text{Printed price of an article} = ₹60000$$

$$\text{Rate of discount} = 20\%$$

$$\text{Total discount} = (60000 \times 20) / 100$$

$$= ₹12000$$

$$\text{Selling price after discount} = 60000 - 12000$$

$$= ₹48000$$

$$\text{Rate of VAT} = 6\%$$

$$\text{(i) Amount paid by the shopkeeper} = ₹48000 + (48000 \times 6) / 100$$

$$= 48000 + 2880$$

$$= ₹50880$$

$$\text{(ii) The price at which the shopkeeper sold to the customer} = ₹60000$$

$$\text{Profit} = ₹60000 - 48000$$

$$= ₹12000$$

$$\text{VAT paid by the customer to the government} = ₹ (12000 \times 6) / 100$$

$$= ₹ 720$$

(iii) Total cost to the customer = ₹60000 + VAT inclusive of tax
= 60000 + (60000×6)/100
= 60000 + 3600
= ₹63600

