## Exercise I(B)

1. Fill in the blanks:

When the goods/services are sold for Rs. 15,000 under intra-state transaction from station A to station B and the rate of GST is $\mathbf{1 2 \%}$.
As per GST System
(a) S.P. at station A = $\qquad$
(b) CGST $=6 \%$ of $\mathbf{1 5 , 0 0 0}=$ $\qquad$ SGST $=6 \%$ of $15,000=$
(c) C.P. at station B =
(d) If profit = Rs. 5000 S.P. at station B =

Now the same goods/services are moved under inter-state transaction from station $B$ to station $C$ and the rate of tax is $12 \%$.
(e) GST = $\qquad$
(f) C.P. at station C $=$

## Solution:

When the goods/services are sold for Rs. 15,000 under intra-state transaction from station A to station B and the rate of GST is $12 \%$.
As per GST System
(a) S.P. at station $\mathrm{A}=$ Rs. 15,000
(b) CGST $=6 \%$ of $15,000=$ Rs. 900 SGST $=6 \%$ of $15,000=$ Rs. 900
(c) C.P. at station $B=$ Rs. 15,000
(d) If profit $=$ Rs. 5000
S.P. at station $B=15,000+5000=$ Rs. 20,000

Now the same goods/services are moved under inter-state transaction from station B to station C and the rate of tax is $12 \%$.
(e) GST $=12 \%$ of $20,000=$ Rs. 2400
(f) C.P. at station $\mathrm{C}=$ Rs. 20,000
2. Goods/services are sold from Agra (U.P.) to Kanpur (U.P.) for Rs. 20,000 and then from Kanpur to Jaipur (Rajasthan). If the rate of GST is $18 \%$ and the profit made at Kanpur is Rs. 5000, find:
(i) the net GST payable by the dealer at Kanpur.
(ii) the cost of goods/services at Jaipur.

Solution:
From the question, when the product is sold from Agra to Kanpur (intra-state transaction)
For the dealer in Agra:
S. P. in Agra = Rs. 20,000

CGST $=9 \%$ of Rs. $20,000=9 / 100 \times 20,000=1800$
SGST $=9 \%$ of Rs. $20,000=9 / 100 \times 20,000=1800$
Now, when the product is sold from Kanpur to Jaipur (inter-state transaction)
For the dealer in Kanpur

Input-tax credit $=1800+1800=$ Rs. 3600
C. P. $=$ Rs. 20,000 and Profit $=$ Rs. 5000

So, the S.P. $=20,000+5000=$ Rs. 25,000
IGST $=18 \%$ of $25,000=$ Rs. 4500
Therefore,
(i) Net GST paid by the dealer at Kanpur

$$
\begin{aligned}
& =\text { Output GST - Input GST } \\
& =4500-3600 \\
& =\text { Rs. } 900
\end{aligned}
$$

(ii) The cost of goods/services at Jaipur
$=$ S. P. in Agra + IGST
$=25,000+18 \%$ of 25000
$=25,000+4500$
$=$ Rs. 29,500
3. Goods/services are sold from Kota (Rajasthan) to Mumbai for Rs. 20,000 and then from Mumbai to Pune. If the rate of GST is $\mathbf{1 2 \%}$ and the profit made at Mumbai is Rs. 5000 ; find the net GST paid at Pune, if the dealer at Pune is the end-user.

## Solution:

From the question, we have
For the dealer in Mumbai (inter-state transaction)
CP = Rs. 20,000
IGST $=12 \%$ of Rs. $20,000=12 / 100 \times 20,000=$ Rs. 2400
Given, Profit = Rs. 5000
SP = Rs. 25,000
Now, for the dealer in Pune (intra-state transaction)
CP = Rs. 25,000
CGST $=6 \%$ of $25,000=$ Rs. 1500
SGST $=6 \%$ of $25,000=$ Rs. 1500
Thus, the GST paid by the end user at Pune is $(1500+1500)$ Rs $=$ Rs. 3000
4. A is a dealer in Banaras (U.P.). he supplies goods/services worth Rs. 8000 to a dealer $B$ in Agra (U.P.). Dealer B, in turn, supplies the same goods/services to dealer C in Patna (Bihar) at a profit of Rs. 1200. Find the input and output taxes for the dealer C under GST system; if the rate of GST is $\mathbf{1 8 \%}$ and C does not sell his goods/services further.
Solution:
From the question,
For the dealer A (intra-state transaction)
SP = Rs. 8,000
For the dealer B (intra-state transaction)
CP = Rs. 8,000
CGST $=9 \%$ of $8,000=$ Rs. 720
SGST $=9 \%$ of $8,000=$ Rs. 720

Given profit = Rs. 1,200
SP = Rs. 9,200
For the dealer C (inter-state transaction)
CP = Rs. 9,200
IGST $=18 \%$ of Rs. $9,200=18 / 100 \times 9200=$ Rs 1656
Input Tax = Rs. 1,656
As the dealer in Patna does not sell the product.
Thus, the output GST (tax on sale) = Rs. 0
5. A is a dealer in Meerut (U.P.). He supplies goods/services, worth Rs. 15,000 to a dealer B in Ratlam (M.P.). Dealer B, in turn, supplies the same goods/services to dealer C in Jabalpur (M.P.) at a profit of Rs. 3000. If rate of tax (under GST system) is $\mathbf{1 8 \%}$, find :
(i) The cost of goods/services to the dealer $\mathbf{C}$ in Jabalpur.
(ii) Net tax payable by dealer B.

## Solution:

From the question,
For A (case of inter-state transaction)
S.P. in Meerut = Rs. 15,000

For B (case of inter-state transaction)
C.P. = Rs. 15,000

IGST $=18 \%$ of $15,000=18 / 100 \times 15,000=$ Rs. 2700
Now, the input tax for $B=$ Rs. 2,700
And the S.P. in Ratlam $=15,000+3000=$ Rs. 18,000
For C (case of intra-state transaction)
C.P. = Rs. 18,000

CGST $=9 \%$ of $18,000=9 / 100 \times 18,000=$ Rs. 1620
SGST $=9 / 100 \times 18,000=$ Rs. 1620
(i) Cost for the dealer C in Jabalpur
$=$ S.P. for the dealer in Ratlam + GST
$=18,000+1620+1620$
$=$ Rs. 21,240
(ii) Output tax for $\mathrm{B}=$ Rs. $1620+$ Rs. $1620=$ Rs. 3240

Net GST payable by the dealer B
= Output tax - Input tax
$=1620+1620-2700$
$=$ Rs. 540
6. A dealer $X$ in Hapur (U.P.) supplies goods/services, worth Rs. 50,000 to some other dealer $Y$ in the same city. Now the dealer $Y$ supplies the same goods/services to dealer $Z$ in Calcutta at a profit
of Rs. 20,000. Find:
(i) Output and input taxes for the dealer $Y$
(ii) Net GST payable by dealer Y.
[The rate of GST at each stage is $28 \%$ ]

## Solution:

From the question, we have
For the dealer X (intra-state transaction)
The SP = Rs. 50,000
For the dealer Y (intra-state transaction)
CP = Rs. 50,000
CGST $=14 \%$ of $50,000=$ Rs. 7,000
SGST $=14 \%$ of $50,000=$ Rs. 7,000
So, the input tax for dealer $\mathrm{Y}=$ Rs. 14,000
Profit = Rs. 20,000
$\mathrm{SP}=$ Rs. 70,000
For the dealer Z (inter-state transaction)
CP = Rs. 70,000
IGST $=28 \%$ of Rs. $70,000=28 / 100 \times 70,000=$ Rs. 19,600
Thus, the input tax $=$ Rs. 19,600 which becomes the output tax for dealer Y.
Now,
The net GST payable for Y will be

$$
\begin{aligned}
& =\text { Output tax for } \mathrm{Y} \text { - Input tax for } \mathrm{Y} \\
& =19,600-14,000 \\
& =\text { Rs. } 5600
\end{aligned}
$$

7. Consultancy services, worth Rs. $\mathbf{5 0 , 0 0 0}$, are transferred from Delhi to Calcutta at the rate of GST $18 \%$ and then from Calcutta to Nainital (with profit $=$ Rs. 20,000 ) at the same rate of GST. Find the output tax at
(i) Delhi
(ii) Calcutta
(iii) Nainital

Solution:
(i) Output tax in Delhi (inter-state):

IGST $=9 \%$ of $50,000=$ Rs. 4500
Thus, the output tax in Delhi $=$ Rs. 4500
(ii) Output tax in Calcutta:
C.P. in Calcutta $=$ Rs. 50,000 and Profit $=$ Rs. 20,000
S.P. in Calcutta $=50,000+20,000=$ Rs. 70,000

IGST $=18 \%$ of $70,000=$ Rs. 12,600
Thus, the output tax in Calcutta = Rs. 12,600
(iii) Since, the dealer in Nainital does not sell the product.

Thus, the output GST (tax on sale) $=$ Rs. 0
8. For a dealer A, the list price of an article is Rs. 9000 , which he sells to dealer $B$ at some lower price. Further, dealer $B$ sells the same article to a customer at its list price. If the rate of GST is $18 \%$ and dealer B paid a tax, under GST, equal to Rs. 324 to the government, find the amount (inclusive of GST) paid by dealer $B$.

## Solution:

Let dealer A sell to dealer B at Rs. x lower price.
Then from the question,
Net Tax paid by dealer B is
$\Rightarrow$ Output tax - Input Tax = Rs. 324
$\Rightarrow 18 \%$ of $9000-18 \%$ of $(9000-\mathrm{x})=324$
$\Rightarrow 1620-1620+18 \%$ of $x=324$
$\Rightarrow 18 \%$ of $x=324$
$\Rightarrow \mathrm{x}=1800$
Therefore, the selling price of $\mathrm{B}=9000-1800=$ Rs. 7200
And,
The amount (inclusive of GST) paid by dealer B
$=7200+18 \%$ of 7200
$=7200+1296$
$=$ Rs. 8496
9. The marked price of an article is Rs. 6000 . A wholesaler sells it to a dealer at $20 \%$ discount. The dealer further sells the article to a customer at a discount of $10 \%$ on the marked price. If the rate of GST at each stage is $18 \%$, find the amount of tax (under GST) paid by the dealer to the government.

## Solution:

We have,
Initial marked price by manufacturer A is Rs. 6000
Then, B bought the T.V. at a discount of $20 \%$.
Now, Cost price of $B=80 \%$ of $6000=$ Rs. 4800
And, GST paid by B for purchase $=18 \%$ of $4800=$ Rs. 864
Again, B sells T.V. at discount of $10 \%$ of market Price
So, the Selling price for $\mathrm{B}=6000-10 \%$ of $6000=$ Rs. 5400
And, GST charged by B on selling of T.V. $=18 \%$ of 5400

$$
\text { = Rs. } 972
$$

Thus, GST paid by B to the government
$=$ GST charged on selling price - GST paid against purchase price
= 972-864
$=$ Rs. 108
10. A is a manufacturer of T.V. sets in Delhi. He manufacturers a particular brand of T.V. set and
marks it at Rs. $\mathbf{7 5 , 0 0 0}$. He then sells this T.V. set to a wholesaler B in Punjab at a discount of $\mathbf{3 0 \%}$. The wholesaler B raises the marked price of the T.V. set bought by $\mathbf{3 0 \%}$ and then sells it to dealer $\mathbf{C}$ in Delhi. If the rate of GST $=5 \%$ find tax (under GST) paid by wholesaler $B$ to the government. Solution:

We know that,
Initial marked price by manufacturer A is Rs. 75,000
Then, B bought the T.V. at a discount of $30 \%$.
So, the Cost price of $\mathrm{B}=70 \%$ of $75,000=$ Rs. 52,500
And, GST paid by B for purchase $=5 \%$ of $52,500=$ Rs. 2625
Now, B sells T.V. by increasing marked price by $30 \%$.
Then, the Selling price for $\mathrm{B}=75,000+30 \%$ of $75,000=$ Rs. 97,500
And, GST charged by B on selling of T.V. $=5 \%$ of 97,500

$$
\text { = Rs. } 4875
$$

Thus, the GST paid by B to the government
= GST charged on selling price - GST paid against purchase price
= 4875-2625
= Rs. 2250
11. For a trader, marked price of a refrigerator $=$ Rs. $\mathbf{1 5 , 6 8 0}$ inclusive of GST at the rate of $\mathbf{1 2 \%}$ on the marked price. Gagan, a customer for this refrigerator, asks the trader to reduce the marked price of the refrigerator to such extend that its reduced price plus GST on it is equal to marked price of the refrigerator. Find the required reduction.

## Solution:

Let us assume the marked price of the refrigerator be Rs. x.
Which is inclusive of GST (12\%)
So,
$x+12 \%$ of $x=15,680$
$1.12 \mathrm{x}=15,680$
$\mathrm{x}=$ Rs. 14,000
Initial marked price $=$ Rs. 14,000
Now,
Let Rs. y be the price reduction asked by Gagan.
So, the new price $=14,000-y$
And, GST on new price $=12 \%$ of $(14,000-y)$
From the question,
$14,000-y+0.12(14,000-y)=14,000$
$-1.12 \mathrm{y}+1680=0$
$y=1500$
Therefore, the required reduction in price is Rs. 1500.

