

Exercise 1 (A)

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1. For the following transaction within Delhi, fill in the blanks to find the amount of bill:

MRP = Rs 12,000, Discount % = 30%, GST = 18%

Discount =

Selling price (discounted value) =

CGST =

SGST =

IGST =

Amount of Bill =

Solution:

Given,

MRP = Rs 12,000, Discount % = 30%, GST = 18%

Now,

Discount = 30% of 12,000 = $(30/100) \times 1200 = \text{Rs } 3600$

So,

Selling price (discounted value) = $12000 - 3600 = \text{Rs } 8400$

CGST = 9% of 8400 = Rs 756

SGST = 9% of 8400 = Rs 756

IGST = 0

Thus, the amount of bill = Selling price + CGST + SGST
= $8400 + 756 + 756$
= Rs 9912

2. For the following transaction from Delhi to Jaipur, fill in the blanks to find the amount of bill:

MRP = Rs 50,000, Discount % = 20%, GST = 28%

Discount =

Selling price (discounted value) =

CGST =

SGST =

IGST =

Amount of Bill =

Solution:

Given,

MRP = Rs 50,000, Discount % = 20%, GST = 28%

Now,

Discount = 20% of 50,000 = $(20/100) \times 50,000 = \text{Rs } 10,000$

So,

Selling price (discounted value) = $50,000 - 10,000 = \text{Rs } 40,000$

CGST = 0

SGST = 0

IGST = 28% of 40,000 = $(28/100) \times 40,000 = \text{Rs } 11,200$

Thus, the amount of bill = Selling price + IGST
= $40,000 + 11,200$

= Rs 51,200

3. A computer mechanic in Delhi charges repairing cost from five different persons A, B, C, D and E with certain discounts. The repairing costs and the corresponding discounts are as given below:

Name of the person	A	B	C	D	E
Repairing cost (in Rs)	5500	6250	4800	7200	3500
Discount %	30	40	30	20	40

If the rate of GST is 18%, find the total money (including GST) received by the mechanic.

Solution:

Name of the person	Repairing cost (in Rs)	Discount %	Discount	Selling price	CGST (9%)	SGST (9%)
A	5500	30	1650	3850	346.5	346.5
B	6250	40	2500	3750	337.5	337.5
C	4800	30	1440	3360	302.4	302.4
D	7200	20	1440	5760	518.4	518.4
E	3500	40	1400	2100	189	189
Total				18,820	1693.8	1693.8

Thus,

The total money (including GST) received by the mechanic is $18,820 + 1693.8 + 1693.8 = \text{Rs. } 22,207.60$

4. Find the amount of bill for the following intra-state transaction of goods/services. The GST rate is 5%.

Quantity (no. of items)	MRP of each item (in Rs.)	Discount %
18	150	10
24	240	20
30	100	30
12	120	20

Solution:

Quantity	MRP	Total MRP	Discount %	Discounted price	Selling price	CGST 2.5%	SGST 2.5%
18	150	2700	10	270	2430	60.75	60.75
24	240	5760	20	1152	4608	115.2	115.2
30	100	3000	30	900	2100	52.5	52.5
12	120	1440	20	288	1152	28.8	28.8
Total					10,290	257.25	257.25

Thus,

$$\begin{aligned} \text{The amount of bill} &= \text{Selling price} + \text{GST} \\ &= 10,290 + 257.25 + 257.25 \\ &= \text{Rs. } 10,804.5 \end{aligned}$$

5. Find the amount of bill for the following inter-state transaction of goods/services. The GST rate is 18%.

Quantity (no. of items)	35	47	20
MRP of each item (in Rs.)	420	600	350
Discount %	10	10	20

Solution:

Quantity	MRP	Total MRP	Discount %	Discounted price	Selling price	CGST 9%	SGST 9%
35	420	14,700	10	1470	13,230	1190.7	1190.7
47	600	28,200	10	2820	25,380	2284.2	2284.2
20	350	7000	20	1400	5600	504	504
Total					44,210	3978.9	3978.9

Thus,

$$\begin{aligned} \text{The amount of bill} &= \text{Selling price} + \text{CGST} + \text{SGST} \\ &= 44,210 + 3978.9 + 3978.9 \\ &= \text{Rs. } 52,167.80 \end{aligned}$$

6. Find the amount of bill for the following intra-state transaction of goods/services.

MRP (in Rs.)	12,000	15,000	9500	18,000
Discount %	30	20	30	40
CGST %	6	9	14	2.5

Solution:

MRP (in Rs.)	Discount %	CGST %	Discounted value	Selling price	CGST	SGST
12,000	30	6	3600	8400	504	504
15,000	20	9	3000	12,000	1080	1080
9500	30	14	2850	6650	931	931
18,000	40	2.5	7200	10,800	270	270
				37,850	2785	2785

$$\begin{aligned} \text{Thus, the amount of bill} &= \text{Selling price} + \text{CGST} + \text{SGST} \\ &= 37,850 + 2785 + 2785 = \text{Rs. } 43,420 \end{aligned}$$

7. For the data given above in questions no. 6, find the amount of bill for the inter-state transaction.

MRP (in Rs.)	12,000	15,000	9500	18,000
Discount %	30	20	30	40
CGST %	6	9	14	2.5

Solution:

MRP (in Rs.)	Discount	Discounted value	Selling price	IGST	IGST
12,000	30	3600	8400	12	1008
15,000	20	3000	12,000	18	2160
9500	30	2850	6650	28	1862
18,000	40	7200	10,800	5	540
			37,850		5570

Thus, the amount of bill = Selling price + GST
 $= 37,850 + 5570$
 $= \text{Rs. } 43,420$

8. A dealer in Mumbai supplied some items at the following prices to a dealer in Delhi. Find the total amount of the bill.

Rate per piece (in Rs.)	Quantity (no. of pieces)	Discount %	SGST %
180	10	-	9
260	20	20	9
310	30	-	9
175	20	30	9

Solution:

Rate per piece (in Rs.)	Quantity (no. of pieces)	Discount %	MRP	Selling price	IGST 18%
180	10	Net	1800	1800	324
260	20	20	5200	4160	748.8
310	30	Net	9300	9300	1674
175	20	30	3500	2450	441
				17,710	3187.8

Thus, the amount of bill = Selling price + IGST
 $= 17,710 + 3187.8$
 $= \text{Rs. } 20,897.80$

9. National Trading Company, Meerut (UP) made the supply of the following goods/services to Samarth Traders, Noida (UP). Find the total amount of bill if the rate of GST = 12%

Quantity	20	30	12	40
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(no. of pieces)				
MRP (in Rs. per piece)	225	320	300	250
Discount %	40	30	50	40

Solution:

MRP (in Rs. per piece)	Quantity (no. of pieces)	Discount %	MRP	Selling price	SGST 6%	CGST 6%
225	20	40	4500	2700	162	162
320	30	30	9600	6720	403.2	403.2
300	12	50	3600	1800	108	108
250	40	40	10,000	6000	360	360
				17,220	1033.2	1033.2

Thus, the amount of bill = Selling price + SGST + CGST
 $= 17,220 + 2066.4$
 $= \text{Rs. } 19,286.4$

10. M/s Ram Traders, Delhi, provided the following services to M/s Geeta Trading Company in Agra (UP). Find the amount of bill:

Number of services	8	12	10	16
Cost of each service (in Rs.)	680	320	260	420
GST %	5	12	18	12

Solution:

Number of services	Cost of each service (in Rs.)	GST %	MRP	IGST
8	680	5	5440	272
12	320	12	3840	460.8
10	260	18	2600	468
16	420	12	6720	806.4
			18,600	2007.2

Thus, the amount of bill = Selling price + IGST
 $= 18,600 + 2007.2$
 $= \text{Rs. } 20,607.2$

11. For the following, find the amount of bill data:

Rate per piece (in Rs.)	Number of pieces	Discount %	GST%
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18	360	10	12
12	480	20	18
12	120	5	12
28	150	20	28

Solution:

Rate per piece (in Rs.)	Number of pieces	Discount %	MRP (in Rs.)	Selling price (in Rs.)	GST %	GST (in Rs.)
18	360	10	6480	5832	12	699.84
12	480	20	5760	4608	18	829.44
12	120	5	1440	1368	12	164.16
28	150	20	4200	3360	28	940.8
				15,168		2634.24

Thus, the amount of bill = Selling price + GST
 $= 15,168 + 2634.24$
 $= \text{Rs. } 17,802.24$

12. The tax invoice of a telecom service in Meerut shows cost of services provided by it as Rs. 750. If the GST rate is 18%, find the amount of the bill.

Solution:

From the question, we have

$$\begin{aligned} \text{GST} &= 18\% \text{ of } 750 \\ &= 18/100 \times 750 = \text{Rs. } 135 \end{aligned}$$

Thus, the amount of bill = $750 + 135 = \text{Rs. } 885$

13. Mr. Pankaj took Health Insurance Policy for his family and paid Rs. 900 as SGST. Find the total annual premium paid by him for this policy, rate of GST being 18%.

Solution:

Let's consider that the total annual premium paid by Mr. Pankaj be Rs. X.

Then, from the question

$$18\% \text{ of } X = \text{SGST} + \text{CGST}$$

$$18\% \text{ of } X = 1800 \quad [\text{as SGST} = \text{CGST}]$$

$$\text{So, } 18/100 \times X = 1800$$

$$X = \text{Rs. } 10,000$$

Therefore, the total annual premium paid by him for the policy is Rs. 10,000

14. Mr. Malik went on a tour to Goa. He took a room in a hotel for two days at the rate of Rs. 5000 per day. On the same day, his friend John also joined him. Hotel provided an extra bed charging Rs. 1000 per day for the bed. How much GST, at the rate of 28% is charged by the hotel in the bill to Mr. Malik for both the days?

Solution:

From the question, we have

The amount of bill = cost of hotel room x no. of days + additional bed charges for the 2 days
= $5000 \times 2 + 1000 + 1000$
= $10,000 + 2000$
= Rs. 12,000

And,

GST = 28% of 12,000
= $28/100 \times 12,000 = 3360$

Therefore, the GST charged by the hotel in the bill to Mr. Malik Rs. 3360.

15. Asharaf went to see a movie. He wanted to purchase a movie ticket for Rs. 80. As the ticket for Rs. 80 was not available, he purchased a ticket for Rs. 120 of upper class. How much extra GST did he pay for the ticket? (GST for a ticket below Rs. 100 is 18% and GST for a ticket above Rs. 100 is 28%)

Solution:

From the question, we have

GST on ticket of Rs. 80 = 18% of 80 = $18/100 \times 80 = \text{Rs. } 14.40$

GST on ticket of Rs. 120 = 28% of 120 = $28/100 \times 120 = \text{Rs. } 33.60$

So,

The difference between both GST = $33.60 - 14.40 = \text{Rs. } 19.20$

Thus, the extra GST Asharaf paid for the ticket is Rs. 19.20

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 12%.

As per GST System

- (a) S.P. at station A =
- (b) CGST = 6% of 15,000 =
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 =
- (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 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 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 = $\frac{9}{100} \times 20,000 = 1800$
 SGST = 9% of Rs. 20,000 = $\frac{9}{100} \times 20,000 = 1800$

Now, when the product is sold from Kanpur to Jaipur (inter-state transaction)

For the dealer in Kanpur

Input-tax credit = $1800 + 1800 = \text{Rs. } 3600$

C. P. = Rs. 20,000 and Profit = Rs. 5000

So, the S.P. = $20,000 + 5000 = \text{Rs. } 25,000$

IGST = 18% of 25,000 = Rs. 4500

Therefore,

- (i) Net GST paid by the dealer at Kanpur
= Output GST - Input GST
= $4500 - 3600$
= Rs. 900
- (ii) The cost of goods/services at Jaipur
= S. P. in Agra + IGST
= $25,000 + 18\% \text{ of } 25000$
= $25,000 + 4500$
= 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 12% 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 = $12/100 \times 20,000 = \text{Rs. } 2400$

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 $(1500 + 1500)\text{Rs} = \text{Rs. } 3000$

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 18% 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 = $18/100 \times 9200 = \text{Rs } 1656$
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 18%, find :

- (i) The cost of goods/services to the dealer 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 = $18/100 \times 15,000 = \text{Rs. } 2700$
Now, the input tax for B = Rs. 2,700
And the S.P. in Ratlam = $15,000 + 3000 = \text{Rs. } 18,000$

For C (case of intra-state transaction)
C.P. = Rs. 18,000
CGST = 9% of 18,000 = $9/100 \times 18,000 = \text{Rs. } 1620$
SGST = $9/100 \times 18,000 = \text{Rs. } 1620$

- (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 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 Y = Rs. 14,000

Profit = Rs. 20,000

SP = Rs. 70,000

For the dealer Z (inter-state transaction)

CP = Rs. 70,000

IGST = 28 % of Rs. 70,000 = $\frac{28}{100} \times 70,000 = \text{Rs. } 19,600$

Thus, the input tax = Rs. 19,600 which becomes the output tax for dealer Y.

Now,

The net GST payable for Y will be

= Output tax for Y - Input tax for Y

= 19,600 - 14,000

= Rs. 5600

7. Consultancy services, worth Rs. 50,000, 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

$$\Rightarrow \text{Output tax} - \text{Input Tax} = \text{Rs. } 324$$

$$\Rightarrow 18\% \text{ of } 9000 - 18\% \text{ of } (9000 - x) = 324$$

$$\Rightarrow 1620 - 1620 + 18\% \text{ of } x = 324$$

$$\Rightarrow 18\% \text{ of } x = 324$$

$$\Rightarrow x = 1800$$

Therefore, the selling price of B = $9000 - 1800 = \text{Rs. } 7200$

And,

The amount (inclusive of GST) paid by dealer B

$$= 7200 + 18\% \text{ of } 7200$$

$$= 7200 + 1296$$

$$= \text{Rs. } 8496$$

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 B = $6000 - 10\% \text{ of } 6000 = \text{Rs. } 5400$

And, GST charged by B on selling of T.V. = 18% of 5400
= Rs. 972

Thus, GST paid by B to the government

= GST charged on selling price - GST paid against purchase price

$$= 972 - 864$$

$$= \text{Rs. } 108$$

10. A is a manufacturer of T.V. sets in Delhi. He manufactures a particular brand of T.V. set and

marks it at Rs. 75,000. He then sells this T.V. set to a wholesaler B in Punjab at a discount of 30%. The wholesaler B raises the marked price of the T.V. set bought by 30% and then sells it to dealer 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 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 B = 75,000 + 30% of 75,000 = Rs. 97,500

And, GST charged by B on selling of T.V. = 5% of 97,500
= 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. 15,680 inclusive of GST at the rate of 12% on the marked price. Gagan, a customer for this refrigerator, asks the trader to reduce the marked price of the refrigerator to such extent 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,

$$x + 12\% \text{ of } x = 15,680$$

$$1.12x = 15,680$$

$$x = \text{Rs. } 14,000$$

Initial marked price = Rs. 14,000

Now,

Let Rs. y be the priced reduction asked by Gagan.

So, the new price = 14,000 - y

And, GST on new price = 12% of (14,000 - y)

From the question,

$$14,000 - y + 0.12(14,000 - y) = 14,000$$

$$-1.12y + 1680 = 0$$

$$y = 1500$$

Therefore, the required reduction in price is Rs. 1500.