Solutions

Section A — Multiple Choice Questions

Q1. Correct Option: (B) Rs 720 **and Rs** 720

Reason: For an intra-state transaction, GST is split equally into CGST and SGST.

$$\text{Total GST} = 18\% \text{ of } 8{,}000 = \text{Rs } 1{,}440$$

$$\text{CGST} = \frac{18\%}{2} \times 8{,}000 = 9\% \times 8{,}000 = \text{Rs } 720$$

$$\text{SGST} = 9\% \times 8{,}000 = \text{Rs } 720$$

Q2. Correct Option: (B) IGST Rs 6,000

Reason: Delhi to Chennai is an inter-state transaction. For inter-state supply, only **IGST** is charged (no CGST or SGST).

$$\text{IGST} = 12\% \times 50{,}000 = \text{Rs } 6{,}000$$

Q3. Correct Option: (B) Rs 5,000

Reason: The consumer pays the price inclusive of 18% GST. Let selling price (before GST) = x.

$$x \times (1 + 0.18) = 5{,}900$$

$$1.18x = 5{,}900$$

$$x = \frac{5{,}900}{1.18} = \text{Rs } 5{,}000$$

Q4. Correct Option: (A) Rs 30,240

Reason: GST is levied on the discounted (transaction) price.

$$\text{Discount} = 10\% \times 30{,}000 = \text{Rs } 3{,}000$$

$$\text{Selling price (SP)} = 30{,}000 - 3{,}000 = \text{Rs } 27{,}000$$

$$\text{GST} = 12\% \times 27{,}000 = \text{Rs } 3{,}240$$

$$\text{Total amount paid} = 27{,}000 + 3{,}240 = \text{Rs } 30{,}240$$

Q5. Correct Option: (B) Rs 5,250

Reason:

$$\text{SP (before GST)} = \text{CP} + 25\% \text{ of CP} = 4{,}000 + 1{,}000 = \text{Rs } 5{,}000$$

$$\text{GST} = 5\% \times 5{,}000 = \text{Rs } 250$$

$$\text{Consumer pays} = 5{,}000 + 250 = \text{Rs } 5{,}250$$

Q6. Correct Option: (C) Rs 600

Reason: Under the Input Tax Credit (ITC) mechanism:

$$\text{Input GST (paid on purchase)} = 12\% \times 20{,}000 = \text{Rs } 2{,}400$$
$$\text{Output GST (collected on sale)} = 12\% \times 25{,}000 = \text{Rs } 3{,}000$$
$$\text{Net GST payable} = 3{,}000 - 2{,}400 = \text{Rs } 600$$

Q7. Correct Option: (D) A is false, but R is true.

Reason:

Assertion A is FALSE. GST is **not** levied on the marked price when a discount is given. It is levied on the **transaction value** (the actual price paid by the buyer after discount).

Reason R is TRUE. Under GST law, the tax base is the transaction value — the price actually paid or payable — which is the discounted price (selling price), not the marked price. R correctly explains the law, but since A is a false statement, the answer is (D).

Q8. Correct Option: (A) Rs 15,930

Reason:

$$\text{Discount} = 10\% \times 15{,}000 = \text{Rs } 1{,}500$$
$$\text{SP (after discount)} = 15{,}000 - 1{,}500 = \text{Rs } 13{,}500$$
$$\text{GST} = 18\% \times 13{,}500 = \text{Rs } 2{,}430$$
$$\text{Total amount paid} = 13{,}500 + 2{,}430 = \text{Rs } 15{,}930$$

Q9. Correct Option: (B) Rs 15,000

Reason: Let marked price = M.

$$\text{SP after 20\% discount} = 0.80 \times M$$
$$\text{Amount paid} = 0.80M \times (1 + 0.12) = 0.896M$$
$$0.896M = 13{,}440$$
$$M = \frac{13{,}440}{0.896} = \text{Rs } 15{,}000$$

Q10. Correct Option: (B) Dealer B

Reason: For a taxable turnover of Rs 5,00,000 at 12% GST:

$$\text{GST collected} = 12\% \times 5{,}00{,}000 = \text{Rs } 60{,}000 = \text{Rs 60 thousands}$$

From the bar chart, Dealer B has GST collected = Rs 60 thousands. Hence the dealer with turnover Rs 5,00,000 is **Dealer B**.

Q11. Correct Option: (A) Rs 3,240

Reason: Under the GST system with ITC, the total GST deposited to the government at all stages equals the GST on the **final consumer price** (since ITC cancels out intermediate taxes).

Verification stage by stage:

$$\begin{aligned}
\text{Manufacturer collects:}\quad & 18\% \times 10{,}000 = \text{Rs } 1{,}800 \quad \text{(paid to government)} \\
\text{Wholesaler collects:}\quad & 18\% \times 14{,}000 = \text{Rs } 2{,}520 \\
\text{Wholesaler's ITC:}\quad & \text{Rs } 1{,}800 \\
\text{Net paid by wholesaler:}\quad & 2{,}520 - 1{,}800 = \text{Rs } 720 \\
\text{Retailer collects:}\quad & 18\% \times 18{,}000 = \text{Rs } 3{,}240 \\
\text{Retailer's ITC:}\quad & \text{Rs } 2{,}520 \\
\text{Net paid by retailer:}\quad & 3{,}240 - 2{,}520 = \text{Rs } 720
\end{aligned}$$

$$\text{Total GST to government} = 1{,}800 + 720 + 720 = \text{Rs } 3{,}240$$

Cross-check: $18\% \times 18{,}000 = \text{Rs } 3{,}240$ ✓

Section B — Short Answer Questions

Q12. Given: Marked Price = Rs 32,000; Discount = 15%; GST = 18% (intra-state: Hyderabad to Hyderabad).

(i) **Selling price after discount:**

$$\text{Discount} = 15\% \times 32{,}000 = \text{Rs } 4{,}800$$

$$\text{SP} = 32{,}000 - 4{,}800 = \textbf{Rs } 27{,}200$$

(ii) **CGST and SGST:**
Since the transaction is intra-state, GST is split equally into CGST and SGST at 9% each.

$$\text{CGST} = 9\% \times 27{,}200 = \textbf{Rs } 2{,}448$$

$$\text{SGST} = 9\% \times 27{,}200 = \textbf{Rs } 2{,}448$$

(iii) **Total amount paid by the customer:**

$$\begin{aligned}
\text{Total} &= \text{SP} + \text{CGST} + \text{SGST} \\
&= 27{,}200 + 2{,}448 + 2{,}448 = \textbf{Rs } 32{,}096
\end{aligned}$$

Q13. Given: Consumer pays Rs 21,240 after 10% discount on MP and 18% GST on SP.

(i) **Selling price (before GST):**
Let SP (before GST) = x.

$$\begin{aligned}
x \times (1 + 0.18) &= 21{,}240 \\
1.18x &= 21{,}240 \\
x &= \frac{21{,}240}{1.18} = \textbf{Rs } 18{,}000
\end{aligned}$$

(ii) **Marked price:**
SP is after 10% discount on MP, so SP = 90% of MP.

$$0.90 \times \text{MP} = 18{,}000$$
$$\text{MP} = \frac{18{,}000}{0.90} = \textbf{Rs } 20{,}000$$

(iii) **GST paid by the customer:**

$$\text{GST} = 18\% \times 18{,}000 = \textbf{Rs } 3{,}240$$

Verification: SP + GST = 18,000 + 3,240 = Rs 21,240 ✓

Q14. Given: CP = Rs 12,000; Markup = 50% above CP; Discount = 20% on MP; GST = 12%.

(i) **Marked price and selling price:**

$$\text{MP} = \text{CP} + 50\% \times \text{CP} = 12{,}000 + 6{,}000 = \textbf{Rs } 18{,}000$$
$$\text{Discount} = 20\% \times 18{,}000 = \text{Rs } 3{,}600$$
$$\text{SP} = 18{,}000 - 3{,}600 = \textbf{Rs } 14{,}400$$

(ii) **Profit percentage on cost price:**

$$\text{Profit} = \text{SP} - \text{CP} = 14{,}400 - 12{,}000 = \text{Rs } 2{,}400$$
$$\text{Profit\%} = \frac{2{,}400}{12{,}000} \times 100 = \mathbf{20\%}$$

(iii) **Total amount paid by the consumer:**

$$\text{GST} = 12\% \times 14{,}400 = \text{Rs } 1{,}728$$
$$\text{Total} = 14{,}400 + 1{,}728 = \textbf{Rs } 16{,}128$$

Q15. Given: Purchase price = Rs 1,50,000; Sale price = Rs 2,00,000; GST = 12%; intra-state (Bengaluru to Bengaluru).

(i) **Input tax (GST paid on purchase):**

$$\text{Input GST} = 12\% \times 1{,}50{,}000 = \textbf{Rs } 18{,}000$$

$$\text{Input CGST} = \text{Input SGST} = \frac{18{,}000}{2} = \text{Rs } 9{,}000 \text{ each}$$

(ii) **Output tax (GST collected on sale):**

$$\text{Output GST} = 12\% \times 2{,}00{,}000 = \textbf{Rs } 24{,}000$$

$$\text{Output CGST} = \text{Output SGST} = \frac{24{,}000}{2} = \text{Rs } 12{,}000 \text{ each}$$

(iii) **Net CGST and Net SGST payable separately:**

$$\text{Net CGST payable} = \text{Output CGST} - \text{Input CGST} = 12{,}000 - 9{,}000 = \textbf{Rs } 3{,}000$$
$$\text{Net SGST payable} = \text{Output SGST} - \text{Input SGST} = 12{,}000 - 9{,}000 = \textbf{Rs } 3{,}000$$

Total net GST payable $= 3{,}000 + 3{,}000 =$ Rs 6,000.

Q16. Given: CP = Rs 40,000; Profit = 30% on CP; GST = 18%; Pune (Maharashtra) to Kolkata (West Bengal).

(i) **Selling price charged to the dealer:**

$$\text{Profit} = 30\% \times 40{,}000 = \text{Rs } 12{,}000$$
$$\text{SP (before GST)} = 40{,}000 + 12{,}000 = \textbf{Rs } 52{,}000$$

(ii) **Type of GST applicable and reason:**
The transaction is from **Pune (Maharashtra)** to **Kolkata (West Bengal)** — two different states. This is an **inter-state supply**. Therefore, **IGST (Integrated GST)** is applicable. No CGST or SGST is charged on inter-state transactions.

(iii) **IGST amount charged:**

$$\text{IGST} = 18\% \times 52{,}000 = \textbf{Rs } 9{,}360$$

Total amount paid by the dealer $= 52{,}000 + 9{,}360 =$ Rs 61,360.

Section C — Long Answer Questions

Q17. Given: Retailer's CP = Rs 24,000; Markup = 40%; Discount = 15%; GST = 12%; all intra-state.

(i) **Marked price and selling price:**

$$\text{MP} = 24{,}000 + 40\% \times 24{,}000 = 24{,}000 + 9{,}600 = \textbf{Rs } 33{,}600$$
$$\text{Discount} = 15\% \times 33{,}600 = \text{Rs } 5{,}040$$
$$\text{SP (before GST)} = 33{,}600 - 5{,}040 = \textbf{Rs } 28{,}560$$

(ii) **Total amount paid by the customer:**

$$\text{GST} = 12\% \times 28{,}560 = \text{Rs } 3{,}427.20$$
$$\text{Total} = 28{,}560 + 3{,}427.20 = \textbf{Rs } 31{,}987.20$$

(iii) **Input tax credit (GST paid by retailer to wholesaler):**

$$\text{Input GST} = 12\% \times 24{,}000 = \textbf{Rs } 2{,}880$$

$$\text{Input CGST} = \text{Input SGST} = \frac{2{,}880}{2} = \text{Rs } 1{,}440 \text{ each}$$

(iv) **Net CGST and Net SGST payable by retailer:**

$$\text{Output GST} = \text{Rs } 3{,}427.20$$

$$\text{Output CGST} = \text{Output SGST} = \frac{3{,}427.20}{2} = \text{Rs } 1{,}713.60 \text{ each}$$

$$\text{Net CGST payable} = 1{,}713.60 - 1{,}440 = \textbf{Rs } 273.60$$

$$\text{Net SGST payable} = 1{,}713.60 - 1{,}440 = \textbf{Rs } 273.60$$

Q18. All transactions intra-state (Jaipur to Jaipur).

(i) **SP after discount and GST for each item:**

Item	Article	MP	Discount	SP	GST%	GST amt
1	Woollen jacket	4,500	450	4,050	12%	486
2	Mobile phone	18,000	900	17,100	18%	3,078
3	Processed food	800	0	800	5%	40

Calculations:

Item 1: SP $= 4{,}500 - 10\% \times 4{,}500 =$ Rs 4,050; GST $= 12\% \times 4{,}050 =$ Rs 486

Item 2: SP $= 18{,}000 - 5\% \times 18{,}000 =$ Rs 17,100; GST $= 18\% \times 17{,}100 =$ Rs 3,078

Item 3: SP = Rs 800; GST $= 5\% \times 800 =$ Rs 40

(ii) **Total CGST and total SGST paid:**

$$\text{Total GST} = 486 + 3{,}078 + 40 = \text{Rs } 3{,}604$$

$$\text{Total CGST} = \frac{3{,}604}{2} = \textbf{Rs } 1{,}802$$

$$\text{Total SGST} = \frac{3{,}604}{2} = \textbf{Rs } 1{,}802$$

(iii) **Total bill amount:**

$$\text{Total SP} = 4{,}050 + 17{,}100 + 800 = \text{Rs } 21{,}950$$

$$\text{Total bill} = 21{,}950 + 3{,}604 = \textbf{Rs } 25{,}554$$

(iv) **Discount on each item:**

$$\text{Discount on Item 1 (jacket)} = 10\% \times 4{,}500 = \text{Rs } 450$$

$$\text{Discount on Item 2 (phone)} = 5\% \times 18{,}000 = \text{Rs } 900$$

$$\text{Discount on Item 3 (food pack)} = 0\% \times 800 = \text{Rs } 0$$

Total discount saved:

$$= 450 + 900 + 0 = \boxed{\text{Rs } 1{,}350}$$

Budget check:
Total bill = Rs 25,554   (computed in part (iii))
Since 25,554 > 25,000, the consumer's budget is **not sufficient**.

$$\text{Shortfall} = 25{,}554 - 25{,}000 = \boxed{\text{Rs } 554}$$

Q19. All transactions intra-state (Lucknow). GST = 18%.
Purchase prices and input GST:

$$\begin{aligned}\text{Input GST (Smart TV)} &= 18\% \times 16{,}000 = \text{Rs } 2{,}880\\ \text{Input GST (Laptop)} &= 18\% \times 40{,}000 = \text{Rs } 7{,}200\\ \text{Input GST (AC)} &= 18\% \times 28{,}000 = \text{Rs } 5{,}040\\ \text{Total Input GST} &= \text{Rs } 15{,}120\end{aligned}$$

(i) **SP after festival discount and total amount per product:**

Product	**LP**	**Disc**	**SP**	**GST (18%)**	**Total**
Smart TV	25,000	20%	20,000	3,600	23,600
Laptop	55,000	10%	49,500	8,910	58,410
AC	40,000	15%	34,000	6,120	40,120

Calculations:

$$\begin{aligned}\text{Smart TV: SP} &= 25{,}000 - 20\% \times 25{,}000 = \textbf{Rs } 20{,}000; \quad \text{GST} = 18\% \times 20{,}000 = \text{Rs } 3{,}6\\ \text{Laptop: SP} &= 55{,}000 - 10\% \times 55{,}000 = \textbf{Rs } 49{,}500; \quad \text{GST} = 18\% \times 49{,}500 = \text{Rs } 8{,}9\\ \text{AC: SP} &= 40{,}000 - 15\% \times 40{,}000 = \textbf{Rs } 34{,}000; \quad \text{GST} = 18\% \times 34{,}000 = \text{Rs } 6{,}1\end{aligned}$$

(ii) **Total output GST collected by Ramesh:**

$$\text{Total Output GST} = 3{,}600 + 8{,}910 + 6{,}120 = \textbf{Rs } 18{,}630$$

(iii) **Total input GST paid by Ramesh:**

$$\text{Total Input GST} = 2{,}880 + 7{,}200 + 5{,}040 = \textbf{Rs } 15{,}120$$

(iv) **Net CGST and Net SGST payable:**

$$\text{Net GST payable} = 18{,}630 - 15{,}120 = \text{Rs } 3{,}510$$

$$\text{Net CGST} = \frac{3{,}510}{2} = \textbf{Rs } 1{,}755$$

$$\text{Net SGST} = \frac{3{,}510}{2} = \textbf{Rs } 1{,}755$$

Q20. (i) **Shopkeeper (Delhi to Delhi, 12% GST):**

$$\begin{aligned}\text{Input GST} &= 12\% \times 35{,}000 = \text{Rs } 4{,}200\\ \text{Output GST} &= 12\% \times 50{,}000 = \text{Rs } 6{,}000\\ \text{Net GST payable} &= 6{,}000 - 4{,}200 = \textbf{Rs } 1{,}800\\ \text{Total paid by customer} &= 50{,}000 + 6{,}000 = \textbf{Rs } 56{,}000\end{aligned}$$

(ii) **Article with 5% GST, price inclusive = Rs** 7,350**:**

(a) **SP before GST:**

$$\text{SP} \times 1.05 = 7{,}350$$
$$\text{SP} = \frac{7{,}350}{1.05} = \textbf{Rs } 7{,}000$$

(b) **Cost price:**
SP = CP +40%×CP = 1.4×CP:

$$1.4 \times \text{CP} = 7{,}000$$
$$\text{CP} = \frac{7{,}000}{1.4} = \textbf{Rs } 5{,}000$$

(iii) **GST paid = Rs** 1,620**; GST rate = 18%; Discount = 10%:**
SP before GST:

$$18\% \times \text{SP} = 1{,}620$$
$$\text{SP} = \frac{1{,}620}{0.18} = \text{Rs } 9{,}000$$

Marked price (SP = 90% of MP):

$$0.90 \times \text{MP} = 9{,}000$$
$$\text{MP} = \frac{9{,}000}{0.90} = \textbf{Rs } 10{,}000$$

Total price paid by consumer:

$$\text{Total} = \text{SP} + \text{GST} = 9{,}000 + 1{,}620 = \textbf{Rs } 10{,}620$$

Q21. Part (i): GST paid by retailer (Input Tax)

$$\text{Cost to retailer (before GST)} = \text{Rs } 15{,}000$$
$$\text{Total input GST} = 18\% \times 15{,}000 = \text{Rs } 2{,}700$$
$$\text{CGST paid} = 9\% \times 15{,}000 = \text{Rs } 1{,}350$$
$$\text{SGST paid} = 9\% \times 15{,}000 = \text{Rs } 1{,}350$$

Part (ii): Marked Price and Selling Price

$$\begin{aligned}\text{Marked price} &= 15{,}000 + 40\% \times 15{,}000 \\ &= 15{,}000 + 6{,}000 = \text{Rs } 21{,}000\end{aligned}$$

$$\text{Discount} = 10\% \times 21{,}000 = \text{Rs } 2{,}100$$

$$\text{Selling price (before GST)} = 21{,}000 - 2{,}100 = \text{Rs } 18{,}900$$

Part (iii): GST collected by retailer (Output Tax)

$$\text{Total output GST} = 18\% \times 18{,}900 = \text{Rs } 3{,}402$$
$$\text{CGST collected} = 9\% \times 18{,}900 = \text{Rs } 1{,}701$$
$$\text{SGST collected} = 9\% \times 18{,}900 = \text{Rs } 1{,}701$$

Part (iv): Net GST payable and Consumer's Total Bill

$$\begin{aligned}
\text{Net GST payable} &= \text{Output tax} - \text{Input tax} \\
&= 3{,}402 - 2{,}700 \\
&= \boxed{\text{Rs } 702}
\end{aligned}$$

$$\begin{aligned}
\text{Total bill paid by consumer} &= \text{SP} + \text{Output GST} \\
&= 18{,}900 + 3{,}402 \\
&= \boxed{\text{Rs } 22{,}302}
\end{aligned}$$