

Practice Set 4.1 Algebra 10th Std Maths Part 1 Answers Chapter 4 Financial Planning

Financial Planning Class 10 Practice Set 4.1 Question 1.

'Pawan Medical' supplies medicines. On some medicines the rate of GST is 12%, then what is the rate of CGST and SGST?

Solution:

$$\text{Rate of GST} = 12\%$$

$$\begin{aligned}\therefore \text{Rate of CGST} &= \text{Rate of SGST} = \frac{\text{Rate of GST}}{2} \\ &= \frac{12}{2} = 6\% \\ \therefore \text{Rate of CGST} &= \text{Rate of SGST} = 6\%\end{aligned}$$

Question 2.

On certain article if rate of CGST is 9% then what is the rate of SGST? and what is the rate of GST?

Solution:

$$\text{Rate of CGST} = 9\%$$

$$\text{But, rate of SGST} = \text{rate of CGST}$$

$$\therefore \text{Rate of SGST} = 9\%$$

$$\text{Rate of GST} = \text{Rate of SGST} + \text{Rate of CGST} = 9\% + 9\%$$

$$\therefore \text{Rate of GST} = 18\%$$

Financial Planning Class 10 Question 3.

'M/s. Real Paint' sold 2 tins of lustre paint and taxable value of each tin is ₹ 2800. If the rate of GST is 28%, then find the amount of CGST and SGST charged in the tax invoice.

Solution:

$$\text{Taxable value of 1 tin} = ₹ 2800$$

$$\therefore \text{Taxable value of 2 tins} = 2 \times 2800$$

$$= ₹ 5600$$

$$\text{Rate of GST} = 28\%$$

$$\therefore \text{Rate of CGST} = \text{Rate of SGST} = 14\%$$

$$\text{CGST} = 14\% \text{ of taxable value } 5600$$

$$= \frac{14}{100} \times 5600$$

$$\therefore \text{CGST} = ₹ 784$$

$$\therefore \text{SGST} = \text{CGST} = ₹ 784$$

$$\therefore \text{The amount of CGST and SGST charged in the tax invoice is ₹ 784 each.}$$

Question 4.

The taxable value of a wrist watch belt is ₹ 586. Rate of GST is 18%. Then what is price of the belt for the customer?

Solution:

$$\text{Taxable value of wrist watch belt} = ₹ 586$$

$$\text{Rate of GST} = 18\%$$

$$\therefore \text{GST} = 18\% \text{ of taxable value}$$

$$= \frac{18}{100} \times 586$$

$$\therefore \text{GST} = ₹ 105.48$$

$$\therefore \text{Amount paid by customer} = \text{Taxable value of wrist watch belt} + \text{GST}$$

$$= 586 + 105.48$$

$$= ₹ 691.48$$

$$\therefore \text{The price of the belt for the customer is ₹ 691.48.}$$

Question 5.

The total value (with GST) of a remote-controlled toy car is ₹ 1770. Rate of GST is 18% on toys. Find the taxable value, CGST and SGST for this toy-car.

Solution:

$$\text{Let the amount of GST be ₹ } x.$$

$$\text{Total value of remote controlled toy car} = ₹ 1770$$

$$\therefore \text{Taxable value of remote controlled toy car} = ₹ (1770 - x)$$

$$\text{Now, GST} = 18\% \text{ of taxable value}$$

$$\therefore x = \frac{18}{100} \times (1770 - x)$$

$$\therefore 100x = 18(1770 - x)$$

$$\therefore 100x = 18 \times 1770 - 18x$$

$$\therefore 100x + 18x = 18 \times 1770$$

$$\therefore 118x = 18 \times 1770$$

$$\therefore x = \frac{18 \times 1770}{118} = 18 \times 15 = 270$$

$$\therefore \text{GST} = ₹ 270$$

$$\begin{aligned} \therefore \text{Taxable value of remote controlled toy car} \\ &= ₹(1770 - x) \\ &= ₹(1770 - 270) \\ &= ₹ 1500 \end{aligned}$$

$$\text{But, CGST} = \text{SGST} = \frac{\text{GST}}{2}$$

$$\therefore \text{CGST} = \text{SGST} = \frac{270}{2} = ₹ 135$$

\therefore Taxable value of toy car is ₹ 1500 and CGST and SGST for it is ₹ 135 each.

Question 6.

'Tiptop Electronics' supplied an AC of 1.5 ton to a company. Cost of the AC supplied is ₹ 51,200 (with GST). Rate of CGST on AC is 14%. Then find the following amounts as shown in the tax invoice of Tiptop Electronics.

i. Rate of SGST

ii. Rate of GST on AC

iii. Taxable value of AC

iv. Total amount of GST

v. Amount of CGST

vi. Amount of SGST

Solution:

i. Rate of CGST = 14%

But, Rate of SGST = Rate of CGST

\therefore Rate of SGST = 14%

ii. Rate of GST on AC

= Rate of SGST + Rate of CGST

= 14% + 14% = 28%

\therefore Rate of GST on AC is 28%.

iii. Let the cost (Taxable value) of AC be ₹ 100.

Given, GST = 28%

\therefore The cost of AC with GST is ₹ 128.

For the total value of ₹ 128, the taxable value is ₹ 100.

For the total value of ₹ 51200, let the taxable value be ₹ x

Since, $\frac{\text{total value}}{\text{taxable value}} = \text{constant, as rate of GST}$

is same

$$\therefore \frac{51200}{x} = \frac{128}{100}$$

$$\therefore x = \frac{51200 \times 100}{128}$$

$$= ₹ 40000.$$

\therefore Taxable value of AC is ₹ 40,000.

iv. Total amount of GST = 28% of taxable value

= 28% \times 40000

= ₹ 11,200

\therefore Total amount of GST is ₹ 11,200.

\therefore Amount of CGST is ₹ 5600.

$$\begin{aligned} \text{v. } \text{CGST} &= \frac{\text{GST}}{2} \\ &= \frac{11200}{2} \\ &= ₹ 5600 \end{aligned}$$

∴ **Amount of CGST is ₹ 5600.**

vi. Amount of SGST = Amount of CGST
= ₹ 5600
Amount of SGST is ₹ 5600.

Question 7.

Prasad purchased a washing-machine from 'Maharashtra Electronic Goods'. The discount of 5% was given on the printed price of ₹ 40,000. Rate of GST charged was 28%. Find the purchase price of washing machine. Also find the amount of CGST and SGST shown in the tax invoice. Solution:

Printed price of washing machine = ₹ 40,000

Rate of discount = 5%

Amount of discount = 5% of printed price

= $5\% \times 40000 = ₹ 2000$

∴ Taxable value = Printed price – Discount

= $40000 - 2000 = ₹ 38000$

Rate of GST = 28%

∴ Rate of CGST = 14% and

Rate of SGST = 14%

CGST = 14% of taxable value

= $14\% \times 38000$

∴ CGST = ₹ 5320

∴ CGST = SGST = ₹ 5320

Purchase price of washing machine

= Taxable value + CGST + SGST

= $38000 + 5320 + 5320$

= ₹ 48,640

∴ Purchase price of washing machine is ₹ 48640. Amount of CGST and SGST in tax invoice is ₹ 5320 each.

Question 1.

Observe the given bill and fill in the boxes with the appropriate number. (Textbook pg. no. 82 and 83)

Tax invoice of goods purchase(Sample)										
SUPPLIER : A to Z SWEET MART						GSTIN: 27ABCDE1234H1Z5				
143, Shivaji Rasta, Mumbai : 400001 Maharashtra										
Mob. No. 92636 92111 email: atoz@gmail.com										
Invoice No. GST / 110						Invoice Date : 31-Jul -2017				
Sr. No.	HSN Code	Name of Product	Rate	Quantity	Taxable Amount	CGST		SGST		Total ₹
						Rate	Tax	Rate	Tax	
1	210690	Pedhe	₹ 400 per kg.	500 gm	200.00	2.5 %	5.00	2.5 %	5.00	210.00
2	210691	Chocolate	₹80	1 bar	80.00	14 %	11.20	14 %	11.20	102.40
3	2105	Ice-cream	₹ 200 per pack	1 pack (500 gm)	200.00	9 %	18.00	9 %	18.00	236.00
4	1905	Bread	₹ 35	1 pack	35.00	0 %	0.00	0 %	0.00	35.00
5	210690	Butter	₹ 500 per kg	250 gm	125.00	6 %	7.50	6 %	7.50	140.00
Total Rupees							41.70		41.70	723.40

Solution:

i. Price of 1 kg of Pedhe is ₹ 400, therefore cost of 500 gm. of Pedhe is ₹ 200.

CGST for pedhe at the rate of 2.5% is ₹ [5] and SGST at the rate of [2.5] % is ₹ 5.00. It means that the rate of GST on Pedhe is 2.5% + 2.5% = 5% and hence the total GST is ₹ 10.

ii. The rate of GST on chocolate is [28] % and hence the total GST is ₹ [22.40]

iii. Rate of GST on Ice-cream is [18] %, hence the total cost of ice-cream is ₹ 236

iv. On butter CGST rate is [6] % and SGST rate is also [6] %. So GST rate on butter is [12] %.

Question 2.

Fill in the blanks with the help of given information for the table given below. (Textbook pg. no. 83)

Solution:

Tax invoice of services provided (Sample)								
Food Junction, Khed-Shivapur, Pune						Invoice No. 58		
Mob. No. 7588580000 email: ahar.khed@yahoo.com								
GSTIN : 27 AAAAA5555B1ZA						Invoice Date : 25-Dec -2017		
SAC	Food items	Qty	Rate (in.₹)	Taxable Amount	CGST		SGST	
9961	Coffee	1	20	20.00	2.5 %	₹ 0.50	2.5 %	₹ 0.50
9963	Masala Tea	1	10	10.00	2.5%	₹ 0.25	2.5 %	₹ 0.25
9962	Masala Dosa	2	60	120.00	2.5%	₹ 3	2.5%	₹ 3
			Total	150.00		₹ 3.75		₹ 3.75
Grand Total = ₹ 157.5								

Question 3.

Make a list of ten things you need in your daily life. Find the GST rates with the help of GST rate chart given in the textbook, news papers or books, internet, or the bills of purchases. Verify these rates with the list prepared by your friends. (Textbook pg. no. 85)

Solution:

Goods	Rate of GST	Goods	Rate of GST
1. Geometry box	12%	6. Bicycle pumps	12%
2. Notebook	12%	7. Perfumes	18%
3. Cheese	12%	8. Condensed milk	12%
4. Fruit juice based drinks	12%	9. Refrigerators	18%
5. Tooth powder	12%	10. Newspapers	0%

Question 4.

Make a list of ten services and their GST rates as per activity 1. (e.g. Railway and ST bus booking services etc.) You can also collect service bills and complete the given information (Textbook pg. no. 85)

Solution:

Services	Rate of GST	Services	Rate of GST
1. Railway booking	5%	6. Tour operator services	5%
2. Courier services	18%	7. Beauty services	18%
3. Building construction services	18%	8. Passenger transport services by radio taxi	5%
4. Education services	18%	9. Sporting services – race club	28%
5. Tailoring services	5%	10. Services for printing of journals	12%

Question 5.

Complete the given table by writing remaining SAC and HSN codes with rates and add some more items in the list. (Textbook pg, no. 85)

Solution:

Services	SAC	GST rate	Goods	HSN	GST rate
Bus station services	996741	18%	Dulux paint	3208	18%
Airways services (economy)	996425	18%	Ball bearing	84821011	28%
Foreign exchange services	997157	18%	Three wheeled vehicles	8703	28%
Brokerage services	997152	18%	Potatoes	0701	Nil
Taxi services	996423	18%	Pasta	1902	12%
Five-star Hotel services	9963	28%	Medicated toilet soap	34011110	18%
Water well drilling services	995434	18%	Candles	34060010	12%

[Note : The above Activities has many answers students may write answers other than the ones given]

Practice Set 4.2 Algebra 10th Std Maths Part 1 Answers Chapter 4 Financial Planning

Question 1. 'Chetana Store' paid total GST of ₹ 1,00,500 at the time of purchase and collected GST ₹ 1,22,500 at the time of sale during 1st of July 2017 to 31st July 2017. Find the GST payable by Chetana Stores.

Answer:

Output tax (Tax collected at the time of sale)

= ₹ 1,22,500

Input tax (Tax paid at the time of purchase)

= ₹ 1,00,500

ITC (Input Tax credit) = ₹ 1,00,500.

GST payable = Output tax – ITC

= 1,22,500 – 1,00,500

= ₹ 22,000

GST payable by Chetana stores is ₹ 22,000.

Question 2. Nazama is a proprietor of a firm, registered under GST. She has paid GST of ₹ 12,500 on purchase and collected ₹ 14,750 on sale. What is the amount of ITC to be claimed? What is the amount of GST payable?

Solution:

Output tax = ₹ 14,750

Input tax = ₹ 12,500

∴ ITC for Nazama = ₹ 12,500.

∴ GST payable = Output tax – ITC

= 14750 – 12500

= ₹ 2250

∴ Amount of ITC to be claimed is ₹ 12,500 and amount of GST payable is ₹ 2250.

Question 3. Amir Enterprise purchased chocolate sauce bottles and paid GST of ₹ 3800. He sold those bottles to Akbari Bros, and collected GST of ₹ 4100. Mayank Food Corner purchased these bottles from Akbari Bros, and paid GST of ₹ 4500. Find the amount of GST payable at every stage of trading and hence find payable CGST and SGST.

Solution:

For Amir Enterprise:

Output tax = ₹ 4100

Input tax = ₹ 3800

ITC for Amir enterprise = ₹ 3800.

∴ GST payable = Output tax – ITC

= 4100 – 3800

= ₹ 300

For Akbari Bros.:

Output tax = ₹ 4500

Input tax = ₹ 4100

ITC for Akbari Bros = ₹ 4100.

GST payable = Output tax – ITC

= 4500 – 4100 = ₹ 400

∴ Statement of GST payable at every stage of trading:

Company	GST payable	CGST payable	SGST payable
Amir Enterprise	₹ 300	₹ 150	₹ 150
Akbari Bros.	₹ 400	₹ 200	₹ 200
Total	₹ 700	₹ 350	₹ 350

Question 4. Malik Gas Agency (Chandigarh Union Territory) purchased some gas cylinders for industrial use for ₹ 24,500, and sold them to the local customers for ₹ 26,500. Find the GST to be paid at the rate of 5% and hence the CGST and UTGST to be paid for this transaction, (for Union Territories there is UTGST instead of SGST.)

Solution:

For Malik Gas Agency:

Output tax = 5% of 26500

= $\frac{5100}{100} \times 26500$

= ₹ 1325

Input tax = 5% of 24500

= $\frac{5100}{100} \times 24500$

= ₹ 1225

ITC for Malik Gas Agency = ₹ 1225.

∴ GST payable = Output tax – ITC

= 1325 – 1225

= ₹ 100

$$\text{CGST} = \text{UTGST} = \frac{\text{GST payable}}{2} = \frac{100}{2}$$

∴ CGST = UTGST = ₹ 50

∴ The GST to be paid at the rate of 5% is ₹ 100 and hence, CGST and UTGST paid for the transaction is ₹ 50 each.

Question 5.

M/s Beauty Products paid 18% GST on cosmetics worth ₹ 6000 and sold to a customer for ₹ 10,000. What are the amounts of CGST and SGST shown in the tax invoice issued?

Solution:

Output tax = 18% of 10,000

= $\frac{18100}{100} \times 10,000$

= ₹ 1800

$$\therefore \text{CGST} = \text{SGST} = \frac{\text{Output tax}}{2}$$

$$= \frac{1800}{2} = ₹ 900$$

\therefore Amount of CGST and SGST shown in the tax invoice issued is ₹ 900 each.

Question 6.

Prepare Business to Consumer (B2C) tax invoice using given information. Write the name of the supplier, address, state, Date, Invoice number, GSTIN etc. as per your choice.

Supplier: M/s _____ Address _____ State _____ Date _____ Invoice No. _____ GSTIN _____

Particulars

Rate of Mobile Battery ₹ 200 Rate of GST 12% HSN 8507 1 PC

Rate of Headphone ₹750 Rate of GST 18% HSN 8518 1 Pc

Solution:

Rate of Mobile Battery = ₹200

CGST = 6% of 200

$= 6\% \times 200$

= ₹ 12

\therefore CGST = SGST = ₹ 12

Rate of Headphone = ₹ 750

COST = 9% of 750

$= 9\% \times 750$

= ₹ 67.5

\therefore CGST = SGST = ₹ 67.5

Tax Invoice of goods purchase										
SUPPLIER: ABC Mobile centre,						GSTIN: 27PQRST2345K1Z4				
48, Raj Business Park, Mumbai: 400086, Maharashtra										
Mob. No. 8234765820 Email: ABC@gmail.com										
Invoice No. GST/120						Invoice Date : 3-Jan -2018				
Sr. No	HSN code	Name of product	Rate	Quantity	Taxable Amount	CGST		SGST		Total
						Rate	Tax	Rate	Tax	₹
1	8507	Mobile Battery	₹ 200	1 pc	200	6%	₹ 12	6%	₹ 12	224
2	8518	Headphone	₹ 750	1 pc	750	9%	₹ 67.5	9%	₹ 67.5	885
Total Rupees							79.5		79.5	1109

Question 7.

Prepare Business to Business (B2B) Tax Invoice as per the details given below, name of the supplier, address, Date etc. as per your choice.

Supplier – Name, Address, State, GSTIN, Invoice No., Date

Recipient – Name, Address, State, GSTIN,

Items:

i. Pencil boxes 100, HSN – 3924, Rate – ₹ 20, GST 12%

ii. Jigsaw Puzzles 50, HSN 9503, Rate – ₹ 100 GST 12%.

Solution:

Cost of 100 Pencil boxes

$= 20 \times 100$

= ₹ 2000

CGST = 6% of 2000

$= 6\% \times 2000$

= ₹ 120

\therefore CGST = SGST = ₹ 120

Cost of 50 Jigsaw Puzzles = 100 × 50

= ₹ 5000

CGST = 6% of 5000

$= 6\% \times 5000$

= ₹ 300

CGST – SGST = ₹ 300

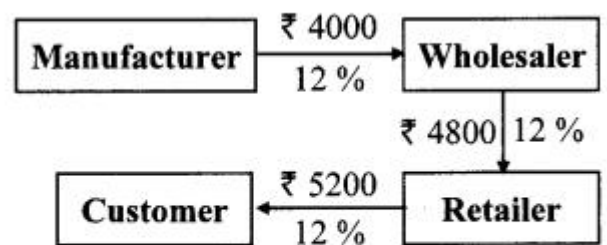
Tax Invoice of goods purchase										
SUPPLIER: XYZ Wholesaler Store, 12, Shakti heights, Mumbai: 400088, Maharashtra Mob. No. 9025805866 Email: XYZ@gmail.com						GSTIN: 27UVWXY9821K1Z4				
RECIPIENT: PQR Stationary Store, 4/408, Swaraj Apartment, Mumbai: 400042, Maharashtra Mob. No. 9851752115 Email: PQR@gmail.com						GSTIN: 27MNOPQ5432K1Z4				
Invoice No. GST/128						Invoice Date: 23 –Feb –2018				
Sr. No	HSN code	Name of product	Rate	Quantity	Taxable Amount	CGST		SGST		Total
						Rate	Tax	Rate	Tax	₹
1	3924	Pencil boxes	₹ 20 Per box	100	₹2000	6%	₹120	6%	₹120	2240
2	9503	Jigsaw Puzzles	₹ 100 Per Puzzle	50	₹5000	6%	₹300	6%	₹300	5600
Total Rupees							420		420	7840

Question 1.

Suppose a manufacturer sold a cycle for a taxable value of ₹ 4000 to the wholesaler. Wholesaler sold it to the retailer for ₹ 4800 (taxable value). Retailer sold it to a customer for ₹ 5200 (taxable value). Rate of GST is 12%. Complete the following activity to find the payable CGST and SGST at each stage of trading. (Textbook pg. no. 92)

Solution:

Trading chain:



Output tax of manufacturer = 12% of 4000

$$= \frac{12}{100} \times 4000 = ₹ 480$$

GST payable by manufacturer = ₹ 480

Output tax of wholesaler

= 12% of 4800 = $\frac{12}{100} \times 4800 = ₹ 576$

∴ GST payable by wholesaler

= Output tax – Input tax

= 576 – 480

= ₹ 96

Output tax of retailer = 12% of 5200

$$= \frac{12}{100} \times 5200 = ₹ 624$$

GST payable by Retailer

= Output tax of retailer – ITC of retailer

$$= 624 - 576$$

$$= ₹ 48$$

Statement of GST payable at each stage of trading:

Individual	GST payable	CGST payable	SGST payable
Manufacturer	₹ 480	₹ 240	₹ 240
Wholesaler	₹ 96	₹ 48	₹ 48
Retailer	₹ 48	₹ 24	₹ 24
Total	₹ 624	₹ 312	₹ 312

Question 2. Suppose in the month of July the output tax of a trader is equal to the input tax, then what is his payable GST?(Textbook pg. no. 93)

Answer:

Here, output tax is same as input tax.

∴ Trader payable GST will be zero.

Question 3.

Suppose in the month of July output tax of a trader is less than the input tax then how to compute his GST? (Textbook pg. no. 93)

Answer:

If output tax of a trader in a particular month is less than his input tax, then he won't be able to get entire credit for his input tax. In such a case his balance credit will be carried forward and adjusted against the subsequent transactions.

Practice Set 4.3 Algebra 10th Std Maths Part 1 Answers Chapter 4 Financial Planning

Practice Set 4.3 Financial Planning Question 1. Complete the following table by writing suitable numbers and words.

Sr.No	FV	Share is at	MV
i.	₹ 100	Par	...
ii.	...	Premium ₹ 500	₹ 575
iii.	₹ 10	...	₹ 5

Solution:

i. Here, share is at par.

∴ MV = FV

∴ MV = ₹ 100

ii. Here, Premium = ₹ 500, MV = ₹ 575

∴ FV + Premium = MV

∴ FV + 500 = 575

∴ FV = 575 – 500

∴ FV = ₹ 75

iii. Here, FV = ₹ 10, MV = ₹ 5

∴ FV > MV

Share is at discount.

FV – Discount = MV

∴ 10 – Discount = 5

∴ 10 – 5 = Discount

₹ Discount = ₹ 5

Sr.No	FV	Share is at	MV
i.	₹ 100	Par	₹ 100
ii.	₹ 75	Premium ₹ 500	₹ 575
iii.	₹ 10	Discount = ₹ 5	₹ 5

Practice Set 4.3 Question 2. Mr. Amol purchased 50 shares of Face value ₹ 100 when the Market value of the share was ₹ 80. Company had given 20% dividend. Find the rate of return on investment.

Solution:

Here, MV = ₹ 80, FV = ₹ 100,

Number of shares = 50, Rate of dividend = 20%

∴ Sum invested = Number of shares × MV

= 50 × 80

= ₹ 4000

Dividend per share = 20% of FV

= ~~20~~100 × 100 = ₹ 20

∴ Total dividend of 50 shares = 50 × 20

= ₹ 1000

Now, rate of return = $\frac{\text{Total dividend}}{\text{Sum invested}} \times 100$
= $\frac{1000}{4000} \times 100$
= 25%

∴ Rate of return on investment is 25%.

Practice Set 4.3 Question 3.

Joseph purchased following shares, Find his total investment.

Company A : 200 shares, FV = ₹ 2, Premium = ₹ 18.

Company B : 45 shares, MV = ₹ 500

Company C : 1 share, MV = ₹ 10,540

Solution:

For company A:

FV = ₹ 2, premium = ₹ 18,

Number of shares = 200

∴ MV = FV + Premium

= 2 + 18

= ₹ 20

Sum invested = Number of shares × MV

= 200 × 20

= ₹ 14000

For company B:

MV = ₹ 500, Number of shares = 45

Sum invested = Number of shares × MV

= 45 × 500 = ₹ 22,500

For company C:

MV = ₹ 10,540, Number of shares = 1

∴ Sum invested = Number of shares × MV

= 1 × 10540

= ₹ 10,540

∴ Total investment of Joseph

= Investment for company A + Investment for company B + Investment for company C

= 4000 + 22,500 + 10,540

= ₹ 37040

∴ Total investment done by Joseph is ₹ 37,040.

Practice Set 4.3 Class 7th Question 4.

Smt. Deshpande purchased shares of FV ₹ 5 at a premium of ₹ 20. How many shares will she get for ₹ 20,000?

Solution:

Here, FV = ₹ 5, Premium = ₹ 20,

Sum invested = ₹ 20,000

∴ MV = FV + Premium

= 5 + 20

∴ MV = ₹ 25

Now, sum invested = Number of shares × MV

$$\begin{aligned}\therefore \text{Number of shares} &= \frac{\text{Sum invested}}{\text{MV}} \\ &= \frac{20,000}{25} \\ &= 800\end{aligned}$$

∴ Smt. Deshpande got 800 shares for ₹ 20,000.

Question 5.

Shri Shantilal has purchased 150 shares of FV ₹ 100, for MV of ₹ 120. Company has paid dividend at 7%. Find the rate of return on his investment.

Solution:

Here, FV = ₹ 100, MV = ₹ 120

Dividend = 7%, Number of shares = 150

∴ Sum invested = Number of shares × MV

= 150 × 120 = ₹ 18000

Dividend per share = 7% of FV

= ~~7100~~ × 100 = ₹ 7

∴ Total dividend of 150 shares

= 150 × 7 = ₹ 1050

$$\begin{aligned}\text{Now, rate of return} &= \frac{\text{Total dividend}}{\text{Sum invested}} \times 100 \\ &= \frac{1050}{18000} \times 100 = 5.83\%\end{aligned}$$

∴ Rate of return on investment is 5.83%.

4.3 Class 10 Question 6. If the face value of both the shares is same, then which investment out of the following is more profitable?

Company A : dividend 16%, MV = ₹ 80,

Company B : dividend 20%, MV = ₹ 120.

Solution:

Let the face value of share be ₹ x.

For company A:

MV = ₹ 80, Dividend = 16%

Dividend = 16% of FV

$$= \frac{16}{100} \times x = ₹ 0.16x$$

$$\begin{aligned} \text{Rate of return} &= \frac{\text{Dividend}}{\text{Sum invested}} \times 100 \\ &= \frac{0.16x}{80} \times 100 = ₹ 0.2x \end{aligned}$$

For company B:

MV = ₹ 120, Dividend = 20%

Dividend = 20% of FV

$$= \frac{20}{100} \times x = ₹ 0.2x$$

$$\begin{aligned} \text{Rate of return} &= \frac{\text{Dividend}}{\text{Sum invested}} \times 100 \\ &= \frac{0.2x}{120} \times 100 = ₹ 0.17x \end{aligned}$$

- ∴ Rate of return of company A is more.
∴ Investment in company A is profitable.

Question 1.

Smita has invested ₹ 12,000 and purchased shares of FV ₹ 10 at a premium of ₹ 2. Find the number of shares she purchased. Complete the given activity to get the answer. (Textbook pg. no. 101.)

Solution:

FV = ₹ 10, Premium = ₹ 2

$$\therefore \text{MV} = \text{FV} + \text{Premium}$$

$$= ₹ 10 + ₹ 2 = ₹ 12$$

$$\begin{aligned} \therefore \text{No. of shares} &= \frac{\text{Total investment}}{\text{MV}} = \frac{12000}{12} \\ &= 1000 \text{ shares} \end{aligned}$$

Ans: Smita has purchased 1000 shares.

Practice Set 4.4 Algebra 10th Std Maths Part 1 Answers Chapter 4 Financial Planning

Question 1.

Market value of a share is ₹ 200. If the brokerage rate is 0.3% then find the purchase value of the share.

Solution:

Here, MV = ₹ 200, Brokerage = 0.3%

Brokerage = 0.3% of MV

$$= 0.3100 \times 200$$

$$= ₹ 0.6$$

∴ Purchase value of the share = MV + Brokerage

$$= 200 + 0.6$$

$$= ₹ 200.60$$

∴ Purchase value of the share is ₹ 200.60.

Question 2.

A share is sold for the market value of ₹ 1000. Brokerage is paid at the rate of 0.1%. What is the amount received after the sale?

Solution:

Here, MV = ₹ 1000, Brokerage = 0.1%

∴ Brokerage = 0.1 % of MV

$$= 0.1100 \times 1000$$

$$\therefore \text{Brokerage} = ₹ 1$$

∴ Selling value of the share = MV – Brokerage

$$= 1000 - 1$$

$$= ₹ 999$$

∴ Amount received after the sale is ₹ 999.

Question 3.

Fill in the blanks given in the contract note of sale-purchase of shares.

(B – buy S – sell)

No. of shares	100 B	75 S
MV of share	₹ 45	₹ 200
Total value		
Brokerage 0.2%		
9% CGST on brokerage		
9% SGST on brokerage		
Total value of shares		

Solution:

For buying shares:

Here, Number of shares = 100,

MV of one share = ₹ 45

∴ Total value = 100×45

= ₹ 4500

Brokerage = 0.2% of total value 0.2

= 0.2100×4500

CGST = 9% of brokerage

= $9100 \times 9 = ₹ 0.81$

But, SGST = CGST

∴ SGST = ₹ 0.81

∴ Purchase value of shares

= Total value + Brokerage

= $4500 + 9 + 0.81 + 0.81$

= ₹ 4510.62

ii. For selling shares:

Here, Number of shares = 75,

MV of one share = ₹ 200

∴ Total value = 75×200

= ₹ 15000

Brokerage = 0.2% of total value

= 0.2100×15000

= ₹ 30

CGST = 9% of brokerage

= $9100 \times 30 = ₹ 2.70$

But, SGST = CGST

∴ SGST = ₹ 2.70

∴ Selling value of shares = Total value – (Brokerage + CGST + SGST)

= $15000 - (30 + 2.70 + 2.70)$

= $15000 - 35.40$

= ₹ 14964.60

No. of shares	100 B	75 S
MV of share	₹ 45	₹ 200
Total value	₹ 4500	₹ 15000
Brokerage 0.2%	₹ 9	₹ 30
9% CGST on brokerage	₹ 0.81	₹ 2.70
9% SGST on brokerage	₹ 0.81	₹ 2.70
Total value of shares	₹ 4510.62	₹ 14964.60

Question 4.

Smt. Desai sold shares of face value ₹ 100 when the market value was ₹ 50 and received ₹ 4988.20. She paid brokerage 0.2% and GST on brokerage 18%, then how many shares did she sell?

Solution:

Here, face value of share = ₹ 100,

MV = ₹ 50,

Selling price of shares = ₹ 4988.20,

Rate of brokerage = 0.2%, Rate of GST = 18%

Brokerage = 0.2% of MV

$$= \frac{0.2}{100} \times 50$$

$$= ₹ 0.1$$

GST = 18% of brokerage

$$= \frac{18}{100} \times 0.1$$

$$= ₹ 0.018$$

Selling price of one share

$$= \text{MV} - (\text{Brokerage} + \text{GST})$$

$$= 50 - (0.1 + 0.018)$$

$$= 50 - 0.118$$

$$= ₹ 49.882$$

∴ Number of shares

$$= \frac{\text{Selling price of all shares}}{\text{Selling price of one share}}$$

$$= \frac{4988.20}{49.882}$$

$$= 100$$

∴ **Smt. Desai sold 100 shares.**

Question 5.

Mr. D'souza purchased 200 shares of FV ₹ 50 at a premium of ₹ 100. He received 50% dividend on the shares. After receiving the dividend he sold 100 shares at a discount of ₹ 10 and remaining shares were sold at a premium of ₹ 75. For each trade he paid the brokerage of ₹ 20. Find whether Mr. D'souza gained or incurred a loss? By how much?

Solution:

For purchasing shares:

Here, FV = ₹ 50, Number of shares = 200,

premium = ₹ 100

MV of 1 share = FV + premium

$$= 50 + 100$$

$$= ₹ 150$$

$$\therefore \text{MV of 200 shares} = 200 \times 150 = ₹ 30,000$$

∴ Mr. D'souza invested amount

= MV of 200 shares + brokerage

$$= 30,000 + 20$$

$$= ₹ 30,020$$

For selling shares:

Rate of dividend = 50 %, FV = ₹ 50,

brokerage = ₹ 20

Number of shares = 200

Dividend per share = 50% of FV

$$= \frac{50}{100} \times 50$$

$$= ₹ 25$$

$$\therefore \text{Dividend of 200 shares} = 200 \times 25 = ₹ 5,000$$

Now, 100 shares are sold at a discount of ₹ 10.

∴ Selling price of 1 share = FV – discount

$$= 50 - 10$$

$$= ₹ 40$$

$$\therefore \text{Selling price of 100 shares} = 100 \times 40$$

$$= ₹ 4000$$

∴ Amount obtained by selling 100 shares

= selling price – brokerage

$$= 4000 - 20$$

$$= ₹ 3980$$

Also, remaining 100 shares are sold at premium of ₹ 75.

∴ selling price of 1 share = FV + premium

$$= 50 + 75$$

$$= ₹ 125$$

$$\therefore \text{selling price of 100 shares} = 100 \times 125$$

$$= ₹ 12,500$$

∴ Amount obtained by selling 100 shares

= selling price – brokerage

$$= 12,500 - 20$$

$$= ₹ 12,480$$

$$\therefore \text{Mr D'souza income} = 5000 + 3980 + 12480$$

$$= ₹ 21460$$

Now, Mr D'souza invested amount > income

∴ Mr D'souza incurred a loss.

∴ Loss = amount invested – income

$$= 30020 - 21460$$

= ₹ 8560

∴ Mr. D'souza incurred a loss of ₹ 8560.

Question 1.

Nalinitai invested ₹ 6024 in the shares of FV ₹ 10 when the Market Value was ₹ 60. She sold all the shares at MV of ₹ 50 after taking 60% dividend. She paid 0.4% brokerage at each stage of transactions. What was the total gain or loss in this transaction? (Textbook pg. no. 106)

Solution:

Rate of GST is not given in the example, so it is not considered.

For Purchased Shares:

FV = ₹ 10, MV = ₹ 60

$$\text{Brokerage per share} = \frac{0.4}{100} \times 60 = \boxed{\text{₹ } 0.24}$$

$$\therefore \text{Cost of one share} = 60 + 0.24 = \boxed{\text{₹ } 60.24}$$

$$\therefore \text{Number of shares} = \frac{6024}{60.24} = 100$$

For sold Shares:

FV = ₹ 10, MV = ₹ 50

$$\therefore \text{Brokerage per share} = \frac{0.4}{100} \times 50 = \boxed{\text{₹ } 0.20}$$

$$\therefore \text{Selling price per share} = 50 - 0.20 = \boxed{\text{₹ } 49.8}$$

$$\therefore \text{Selling price of 100 shares} = 100 \times 49.80 = \boxed{\text{₹ } 4980}$$

Dividend received 60%

$$\therefore \text{Dividend per share} = \frac{60}{100} \times 10 = \text{₹ } 6$$

$$\therefore \text{Dividend on 100 shares} = 6 \times 100 = \boxed{\text{₹ } 600}$$

$$\therefore \text{Nalinitai's income} = \boxed{4980} + \boxed{600} = \text{₹ } 5580$$

Sum invested = ₹ 6024

$$\therefore \text{Loss} = \boxed{6024} - \boxed{5580} = \boxed{\text{₹ } 444}$$

∴ **Nalinitai's loss is ₹ 444.**

Question 2.

In the above example if GST was paid at 18% on brokerage, then the loss is ₹ 451.92. Verify whether you get the same answer. (Textbook pg. no. 107)

Solution:

For Purchased Shares:

FV = ₹ 10, MV = ₹ 60, sum invested = ₹ 6024, brokerage = 0.4 %, GST = 18%

Brokerage per share = $0.4/100 \times 60 = \text{₹ } 0.24$ GST per share = $18/100 \times 0.24 = \text{₹ } 0.0432$ ∴ Cost of one share = $60 + 0.24 + 0.0432$

= ₹ 60.2832

∴ Cost of 100 shares = $100 \times 60.2832 = \text{₹ } 6028.32$

For sold shares:

FV = ₹ 10, MV = ₹ 50, brokerage = 0.4 %, GST = 18%, Number of shares = 100

Brokerage per share = $0.4/100 \times 50 = \text{₹ } 0.20$ GST per share = $18/100 \times 0.20 = \text{₹ } 0.036$ Selling price per share = $50 - 0.2 - 0.036$

= ₹ 49.764

Selling price of 100 shares = 100×49.764

= ₹ 4976.4

Dividend received 60 %

∴ Dividend per share = $60/100 \times 10 = \text{₹ } 6$ Dividend on 100 shares = $6 \times 100 = \text{₹ } 600$ ∴ Nalinitai's income = $4976.4 + 600 = \text{₹ } 5576.4$

∴ Cost of 100 shares = ₹ 6028.32

∴ Loss = $6028.32 - 5576.4 = \text{₹ } 451.92$

∴ Nalinitai's loss is ₹ 451.92.

Problem Set 4A Algebra 10th Std Maths Part 1 Answers Chapter 4 Financial Planning

Financial Planning Class 10 Problem Set 4a Question 1.
Write the correct alternative for each of the following.

i. Rate of GST on essential commodities is _____

- (A) 5%
- (B) 12%
- (C) 0%
- (D) 18%

Answer:

(C)

ii. The tax levied by the central government for trading within state is _____

- (A) IGST
- (B) CGST
- (C) SGST
- (D) UTGST

Answer:

(B)

iii. GST system was introduced in our country from _____

- (A) 31st March 2017
- (B) 1st April 2017
- (C) 1st January 2017
- (D) 1st July 2017

Answer:

(D)

iv. The rate of GST on stainless steel utensils is 18%, then the rate of state GST is _____

- (A) 18%
- (B) 9%
- (C) 36%
- (D) 0.9%

Answer:

(B)

v. In the format of GSTIN there are _____ alpha-numerals.

- (A) 15
- (B) 10
- (C) 16
- (D) 9

Answer:

(A)

vi. When a registered dealer sells goods to another registered dealer under GST, then this trading is termed as _____

- (A) BB
- (B) B2B
- (C) BC
- (D) B2C

Answer:

(B)

10th Class Algebra Problem Set 4a Question 2.

A dealer has given 10% discount on a showpiece of ₹ 25,000. GST of 28% was charged on the discounted price. Find the total amount shown in the tax invoice. What is the amount of CGST and SGST.

Solution:

Printed price of showpiece = ₹ 25,000,

Rate of discount = 10%

∴ Amount of discount = 10% of printed price

= $\frac{10}{100} \times 25000$

= ₹ 2500

∴ Taxable value

= Printed price – discount

= 25,000 – 2500 = ₹ 22,500

Rate of GST = 28%

∴ Rate of CGST = 14% and

Rate of SGST = 14%

CGST = 14% of taxable value

= $\frac{14}{100} \times 22500$

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= ₹ 3150

∴ CGST = SGST = ₹ 3150

∴ Total amount of tax invoice

= Taxable value + CGST + SGST

= 22500 + 3150 + 3150

= ₹ 28,800

∴ The total amount shown in the tax invoice is ₹ 28,800, and the amount of CGST and SGST is ₹ 3150 each.

Financial Planning Problem Set 4a Question 3.

A ready-made garment shopkeeper gives 5% discount on the dress of ₹ 1000 and charges 5% GST on the remaining amount, then what is the purchase price of the dress for the customer?

Solution:

Printed price of dress = ₹ 1000

Rate of discount = 5%

∴ Amount of discount = 5% of printed price

= $5\% \times 1000$

= ₹ 50

∴ Taxable value = Printed price – discount

= 1000 – 50

= ₹ 950

Rate of GST = 5%

∴ GST = 5% of taxable value

= $5\% \times 950$

∴ GST = ₹ 47.5

Purchase price of the dress

= Taxable value + GST

= 950 + 47.5 = ₹ 997.50

∴ Purchase price of the dress for the customer is ₹ 997.50.

Question 4.

A trader from Surat, Gujarat sold cotton clothes to a trader in Rajkot, Gujarat. The taxable value of cotton clothes is ₹ 2.5 lacs. What is the amount of GST at 5% paid by the trader in Rajkot?

Solution:

Taxable amount of cotton clothes = ₹ 2.5 lacs,

Rate of GST = 5%

GST = 5% of taxable amount

= $5\% \times 2,50,000$

= ₹ 12500

∴ Trader of Rajkot has to pay GST of ₹ 12,500.

Question 5.

Smt. Malhotra purchased solar panels for the taxable value of ₹ 85,000. She sold them for ₹ 90,000. The rate of GST is 5%. Find the ITC of Smt. Malhotra. What is the amount of GST payable by her?

Solution:

Output tax = 5% of 90000

= $5\% \times 90000$

= ₹ 4500

Input tax = 5% of 85000

= $5\% \times 85000$

= ₹ 4250

ITC = ₹ 4250.

∴ GST payable = Output tax – ITC

= 4500 – 4250

GST payable = ₹ 250

∴ ITC of Smt. Malhotra is ₹ 4250 and amount of GST payable by her is ₹ 250.

Question 6.

A company provided Z-security services for the taxable value of ₹ 64,500. Rate of GST is 18%. Company had paid GST of ₹ 1550 for laundry services and uniforms etc. What is the amount of ITC (input Tax Credit)? Find the amount of CGST and SGST payable by the company.

Solution:

Output tax = 18% of 64500

= $18\% \times 64500$

= ₹ 11610

Input tax = ₹ 1550

GST payable = Output tax – ITC

= 11610 – 1550

∴ GST payable = ₹ 10060

$$\begin{aligned}\text{SGST} = \text{CGST} &= \frac{\text{GST payable}}{2} \\ &= \frac{10060}{2} \\ &= ₹ 5030\end{aligned}$$

∴ Amount of ITC is ₹ 1550. Amount of CGST and SGST payable by the company is ₹ 5030 each.

Question 7.

A dealer supplied Walky-Talky set of ₹ 84,000 (with GST) to police control room. Rate of GST is 12%. Find the amount of state and central GST charged by the dealer. Also find the taxable value of the set.

Solution:

Let the amount of GST be ₹ x.

Price of walky talky with GST = ₹ 84,000

Taxable value of walky talky = ₹ (84,000 – x)

Now, GST = 12% of taxable value

$$\begin{aligned}\therefore x &= \frac{12}{100} \times (84,000 - x) \\ \therefore 100x &= (84,000 - x) \times 12 \\ \therefore 100x &= 84,000 \times 12 - 12x \\ \therefore 100x + 12x &= 84,000 \times 12 \\ \therefore 112x &= 84,000 \times 12 \\ \therefore x &= \frac{84,000 \times 12}{112} = 750 \times 12 = ₹ 9000 \\ \therefore \text{GST} &= ₹ 9000 \\ \therefore \text{Taxable value of walky talky} \\ &= ₹ (84,000 - x) \\ &= ₹ (84,000 - 9000) \\ &= ₹ 75,000\end{aligned}$$

$$\begin{aligned}\text{Now, CGST} = \text{SGST} &= \frac{\text{GST}}{2} \\ &= \frac{9000}{2} = ₹ 4500\end{aligned}$$

∴ Amount of state and central GST charged by the dealer is ₹ 4,500 each. Taxable value of the set is ₹ 75,000.

Question 8.

A wholesaler purchased electric goods for the taxable amount of ₹ 1,50,000. He sold it to the retailer for the taxable amount of ₹ 1,80,000.

Retailer sold it to the customer for the taxable amount of ₹ 2,20,000. Rate of GST is 18%. Show the computation of GST in tax invoices of sales.

Also find the payable CGST and payable SGST for wholesaler and retailer.

Solution:

For Wholesaler:

Output tax = 18% of ₹ 1,80,000

$$= \frac{18}{100} \times 1,80,000 = ₹ 32,400$$

Input tax = 18% of ₹ 1,50,000

$$= \frac{18}{100} \times 1,50,000$$

$$= ₹ 27,000$$

ITC = ₹ 27,000.

∴ GST payable = Output tax – ITC

$$= 32,400 - 27,000$$

$$= ₹ 5,400$$

∴ SGST = CGST = $\frac{\text{GST payable}}{2}$

$$= \frac{5400}{2} = ₹ 2700$$

For Retailer:

Output tax = 18% of ₹ 2,20,000

$$= \frac{18}{100} \times 2,20,000$$

$$= ₹ 39,600$$

Input tax = ₹ 32,400

ITC = ₹ 32,400.

GST payable = Output tax – ITC

$$= 39,600 - 32,400$$

$$= ₹ 7,200$$

∴ SGST = CGST = $\frac{\text{GST payable}}{2}$

$$= \frac{7200}{2} = ₹ 3600$$

Statement of GST payable at each stage of trading:

Individual	GST payable	CGST payable	SGST payable
Wholesaler	₹ 5,400	₹ 2,700	₹ 2,700
Retailer	₹ 7,200	₹ 3,600	₹ 3,600
Total	₹ 12,600	₹ 6,300	₹ 6,300

Question 9.

Anna Patil (Thane, Maharashtra) supplied vacuum cleaner to a shopkeeper in Vasai (Mumbai) for the taxable value of ₹ 14,000, and GST rate of 28% . Shopkeeper sold it to the customer at the same GST rate for ₹ 16,800 (taxable value). Find the following:

- Amount of CGST and SGST shown in the tax invoice issued by Anna Patil.
- Amount of CGST and SGST charged by the shopkeeper in Vasai.
- What is the CGST and SGST payable by shopkeeper in Vasai at the time of filing the return.

Solution:

i. For Anna Patil:

Output tax = 28% of 14,000

$$= \frac{28}{100} \times 14000$$

$$= ₹ 3920$$

$$\therefore \text{CGST} = \text{SGST} = \frac{\text{GST}}{2}$$

$$= \frac{3920}{2}$$

$$= ₹ 1960$$

∴ Amount of CGST and SGST shown in the tax invoice issued by Anna Patil is ₹ 1960 each.

ii. For Shopkeeper in Vasai:

Output tax = 28% of 16,800

$$= \frac{28}{100} \times 16,800$$

$$= ₹ 4704$$

$$\therefore \text{CGST} = \text{SGST} = \frac{\text{GST}}{2}$$

$$= \frac{4704}{2}$$

$$= ₹ 2352$$

∴ Amount of CGST and SGST charged by the shopkeeper in Vasai is ₹ 2352 each.

iii. ITC = ₹ 3920

GST payable by shopkeeper in Vasai

$$= \text{Output tax} - \text{ITC}$$

$$= 4704 - 3920$$

$$= ₹ 784$$

$$\therefore \text{CGST} = \text{SGST} = \frac{\text{GST payable}}{2}$$

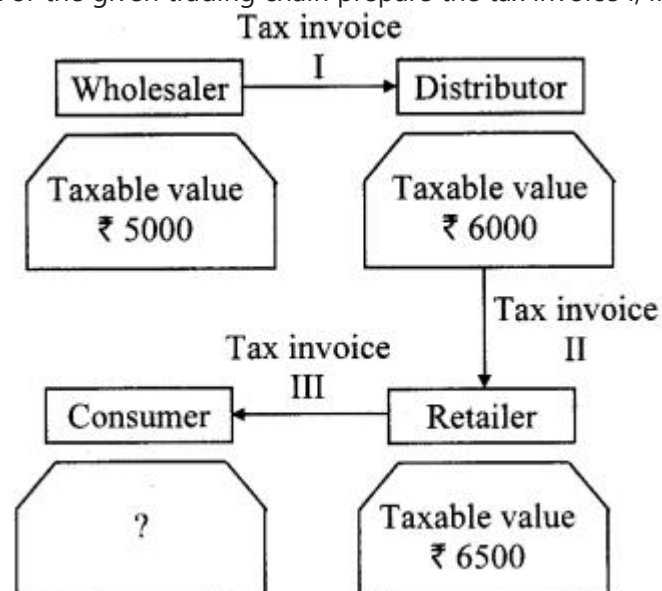
$$= \frac{784}{2}$$

$$= ₹ 392$$

\therefore CGST and SGST payable by shopkeeper in Vasai at the time of filing the return is ₹ 392 each.

Question 10.

For the given trading chain prepare the tax invoice I, II, III. GST at the rate of 12% was charged for the article supplied.



- Prepare the statement of GST payable under each head by the wholesaler, distributor and retailer at the time of filing the return to the government.
- At the end what amount is paid by the consumer?
- Write which of the invoices issued are B2B and B2C.

Solution:

i. For wholesaler:

$$\text{Output tax} = 12\% \text{ of } 5000$$

$$= \frac{12}{100} \times 5000 = ₹ 600$$

For Distributor:

$$\text{Output Tax} = 12\% \text{ of } 6000$$

$$= \frac{12}{100} \times 6000 = ₹ 720$$

$$\text{ITC} = ₹ 600$$

$$\therefore \text{GST payable} = \text{Output tax} - \text{ITC}$$

$$= 720 - 600$$

$$= ₹ 120$$

For Retailer:

$$\text{Output tax} = 12\% \text{ of } 6500$$

$$= \frac{12}{100} \times 6500 = ₹ 780$$

$$\text{ITC} = ₹ 720$$

$$\therefore \text{GST payable} = \text{Output tax} - \text{ITC}$$

$$= 780 - 720 = ₹ 60$$

Statement of GST payable at each stage of trading:

Individual	GST payable	CGST payable	SGST payable
Wholesaler	₹ 600	₹ 300	₹ 300
Distributor	₹ 120	₹ 60	₹ 60
Retailer	₹ 60	₹ 30	₹ 30
Total	₹ 780	₹ 390	₹ 390

ii. ITC for consumer = ₹ 780

$$\therefore \text{Amount paid by consumer}$$

$$= \text{taxable value} + \text{ITC}$$

$$= 6500 + 780$$

$$= ₹ 7280$$

\therefore Amount paid by the consumer is ₹ 7280.

iii. B2B = Wholesaler to Distributor

B2B = Distributor to Retailer

B2C = Retailer to Consumer

Problem Set 4B Algebra 10th Std Maths Part 1 Answers Chapter 4 Financial Planning

Financial Planning Class 10 Problem Set 4b

Question 1.

Write the correct alternative for the following questions.

i. If the Face Value of a share is ₹ 100 and Market value is ₹ 75, then which of the following statement is correct?

- (A) The share is at premium of ₹ 175
- (B) The share is at discount of ₹ 25
- (C) The share is at premium of ₹ 25
- (D) The share is at discount of ₹ 75

Answer:

(B)

ii. What is the amount of dividend received per share of face value ₹ 10 if dividend declared is 50%.

- (A) ₹ 50
- (B) ₹ 5
- (C) ₹ 500
- (D) ₹ 100

Answer:

$$\text{Dividend} = 10 \times \frac{50}{100} = ₹ 5$$

(B)

iii. The NAV of a unit in mutual fund scheme is ₹ 10.65, then find the amount required to buy 500 such units.

- (A) 5325
- (B) 5235
- (C) 532500
- (D) 53250

Answer:

(A)

iv. Rate of GST on brokerage is _____

- (A) 5%
- (B) 12%
- (C) 18%
- (D) 28%

Answer:

(C)

v. To find the cost of one share at the time of buying the amount of Brokerage and GST is to be _____ MV of share.

- (A) added to
- (B) subtracted from
- (C) Multiplied with
- (D) divided by

Answer:

(A)

Problem Set 4b Algebra Class 10 Question 2. Find the purchase price of a share of FV ₹ 100 if it is at premium of ₹ 30. The brokerage rate is 0.3%.

Solution:

Here, Face Value of share = ₹ 100,

premium = ₹ 30, brokerage = 0.3%

MV = FV + Premium

$$= 100 + 30$$

$$= ₹ 130$$

Brokerage = 0.3% of MV

$$= \frac{0.3}{100} \times 130 = ₹ 0.39$$

Purchase price of a share = MV + Brokerage

$$= 130 + 0.39$$

$$= ₹ 130.39$$

Purchase price of a share is ₹ 130.39.

Question 3.

Prashant bought 50 shares of FV ₹ 100, having MV ₹ 180. Company gave 40% dividend on the shares. Find the rate of return on investment.

Solution:

Here, Number of shares = 50, FV = ₹ 100,

MV = ₹ 180, rate of dividend = 40%

∴ Sum invested = Number of shares × MV

$$= 50 \times 180$$

$$= ₹ 9000$$

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Dividend per share = 40% of FV

$$= \frac{40}{100} \times 100$$

Dividend = ₹ 40

∴ Total dividend on 50 shares = 50 × 40

$$= ₹ 2000$$

$$\begin{aligned}\text{Now, rate of return} &= \frac{\text{Total dividend}}{\text{Sum invested}} \times 100 \\ &= \frac{2000}{9000} \times 100 \\ &= 22.2\%\end{aligned}$$

∴ Rate of return on investment is 22.2%.

Question 4.

Find the amount received when 300 shares of FV ₹ 100, were sold at a discount of ₹ 30.

Solution:

Here, FV = ₹ 100, number of shares = 300,

discount = ₹ 30

MV of 1 share = FV – Discount

$$= 100 - 30 = ₹ 70$$

∴ MV of 300 shares = 300 × 70

$$= ₹ 21,000$$

∴ Amount received is ₹ 21,000.

Question 5.

Find the number of shares received when ₹ 60,000 was invested in the shares of FV ₹ 100 and MV ₹ 120.

Solution:

Here, FV = ₹ 100, MV = ₹ 120,

Sum invested = ₹ 60,000

$$\begin{aligned}\text{Number of shares} &= \frac{\text{Sum invested}}{\text{MV}} \\ &= \frac{60,000}{120} \\ &= 500\end{aligned}$$

∴ Number of shares received were 500.

Question 6.

Smt. Mita Agrawal invested ₹ 10,200 when MV of the share is ₹ 100. She sold 60 shares when the MV was ₹ 125 and sold remaining shares when the MV was ₹ 90. She paid 0.1% brokerage for each trading. Find whether she made profit or loss? and how much?

Solution:

For purchasing shares:

Here, sum invested = ₹ 10,200, MV = ₹ 100

$$\begin{aligned}\therefore \text{No. of shares} &= \frac{\text{Sum invested}}{\text{MV}} = \frac{10,200}{100} \\ &= 102\end{aligned}$$

Brokerage = 0.1% of sum invested

$$= \frac{0.1}{100} \times 10200 = ₹ 10.2$$

$$\begin{aligned}\therefore \text{Purchase value of 102 shares} \\ &= \text{sum invested} + \text{brokerage} \\ &= 10200 + 10.2 \\ &= ₹ 10210.2\end{aligned}$$

For selling shares:

60 shares sold at MV of ₹ 125.

∴ MV of 60 shares = 125 × 60

$$= ₹ 7500$$

$$\text{Brokerage} = \frac{0.1}{100} \times 7500 = ₹ 7.5$$

$$\therefore \text{Sale value of 60 shares} = 7500 - 7.5 = ₹ 7492.5$$

Now, remaining shares = 102 – 60 = 42

But 42 shares sold at MV of ₹ 90.

∴ MV of 42 shares = 42 × 90 = ₹ 3780

$$\therefore \text{Brokerage} = \frac{0.1}{100} \times 3780 = ₹ 3.78$$

$$\therefore \text{Sale value of 42 shares} = 3780 - 3.78 = ₹ 3776.22$$

$$\text{Total sale value} = 7492.5 + 3776.22 = ₹ 11268.72$$

Since, Purchase value < Sale value

∴ Profit is gained.

∴ Profit = Sale value – Purchase value

$$= 11268.72 - 10210.2$$

$$= ₹ 1058.52$$

∴ Smt. Mita Agrawal gained a profit of ₹ 1058.52.

Question 7. Market value of shares and dividend declared by the two companies is given below.

Face value is same and it is ₹ 100 for both the shares. Investment in which company is more profitable?

i. Company A – ₹ 132, 12%

ii Company B – ₹ 144, 16%

Solution:

For company A:

FV = ₹ 100, MV = ₹ 132,

Rate of dividend = 12%

Dividend = 12% of FV

$$= \frac{12}{100} \times 100 = ₹ 12$$

$$\text{Rate of return} = \frac{\text{Dividend}}{\text{Sum invested}} \times 100$$

$$= \frac{12}{132} \times 100$$

$$= 9.09\%$$

For company B:

FV = ₹ 100, MV = ₹ 144,

Rate of dividend = 16%

Dividend = 16% of FV

$$= \frac{16}{100} \times 100$$

$$= ₹ 16$$

$$\text{Rate of return} = \frac{\text{Dividend}}{\text{Sum invested}} \times 100$$

$$= \frac{16}{144} \times 100$$

$$= 11.11\%$$

∴ Rate of return of company B is more.

∴ Investment in company B is more profitable.

Question 8. Shri. Aditya Sanghavi invested ₹ 50,118 in shares of FV ₹ 100, when the market value is ₹ 50. Rate of brokerage is 0.2% and Rate of GST on brokerage is 18%, then How many shares were purchased for ₹ 50,118?

Solution:

Here, FV = ₹ 100, MV = ₹ 50

Purchase value of shares = ₹ 50118,

Rate of brokerage = 0.2%, Rate of GST = 18%

Brokerage = 0.2% of MV

$$= \frac{0.2}{100} \times 50$$

Brokerage = ₹ 0.1

GST = 18% of brokerage

$$= \frac{18}{100} \times 0.1$$

$$= ₹ 0.018$$

Purchase value of a share

= MV + Brokerage + GST

= 50 + 0.1 + 0.018

= 50.118

$$\therefore \text{Number of shares} = \frac{\text{Purchase value of all shares}}{\text{Purchase value of one share}}$$

$$= \frac{50118}{50.118}$$

$$= 1000$$

∴ 1000 shares were purchased for ₹ 50,118.

Question 9. Shri. Batliwala sold shares of ₹ 30,350 and purchased shares of ₹ 69,650 in a day. He paid brokerage at the rate of 0.1% on sale and purchase. 18% GST was charged on brokerage. Find his total expenditure on brokerage and tax.

Solution:

Total amount = sale value + Purchase value

= 30350 + 69650

= ₹ 1,00,000

Rate of Brokerage = 0.1 %

Brokerage = 0.1 % of 1,00,000

= 0.1100 × 1,00,000

= ₹ 100

Rate of GST = 18%

∴ GST = 18 % of brokerage

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$$= 18100 \times 100$$

$$\therefore \text{GST} = ₹ 18$$

Total expenditure on brokerage and tax

$$= 100 + 18 = ₹ 118$$

\therefore Total expenditure on brokerage and tax is ₹ 118.

Alternate Method:

Brokerage = 0.1 %, GST = 18%

At the time of selling shares:

Total sale amount of shares = ₹ 30,350

Brokerage = 0.1% of 30,350

$$= \frac{0.1}{100} \times 30,350$$

$$= ₹ 30.35$$

GST = 18% of ₹ 30.35

$$= \frac{18}{100} \times 30.35$$

$$= ₹ 5.463$$

For purchasing shares:

Total purchase amount of shares = ₹ 69,650

Brokerage = 0.1% of 69,650

$$= 0.1100 \times 69650$$

$$= ₹ 69.65$$

GST = 18% of 69.65

$$= 18100 \times 69.65$$

$$= ₹ 12.537$$

\therefore Total expenditure on brokerage and tax = Brokerage and tax on selling + Brokerage and tax on purchasing

$$= (30.35 + 5.463) + (69.65 + 12.537)$$

$$= ₹ 118$$

\therefore Total expenditure on brokerage and tax is ₹ 118.

Question 10. Sint. Aruna Thakkar purchased 100 shares of FV 100 when the MV is ₹ 1200. She paid brokerage at the rate of 0.3% and 18% GST on brokerage. Find the following –

i. Net amount paid for 100 shares.

ii. Brokerage paid on sum invested.

iii. GST paid on brokerage.

iv. Total amount paid for 100 shares.

Solution:

Here, FV = ₹ 100,

Number of shares = 100, MV = ₹ 1200

Brokerage = 0.3%, GST = 18%

i. Sum invested = Number of shares \times MV

$$= 100 \times 1200 = ₹ 1,20,000$$

\therefore Net amount paid for 100 shares is ₹ 1,20,000.

ii. Brokerage = 0.3% of sum invested

$$= 0.3100 \times 1,20,000 = ₹ 360$$

\therefore Brokerage paid on sum invested is ₹ 360.

iii. GST = 18% of brokerage

$$= 18100 \times 360 = ₹ 64.80$$

\therefore GST paid on brokerage is ₹ 64.80.

iv. Total amount paid for 100 shares

= Sum invested + Brokerage + GST

$$= 1,20,000 + 360 + 64.80$$

$$= ₹ 1,20,424.80$$

\therefore Total amount paid for 100 shares is ₹ 1,20,424.80.

Question 11. Smt. Anagha Doshi purchased 22 shares of FV ₹ 100 for Market Value of ₹ 660. Find the sum invested. After taking 20% dividend, she sold all the shares when market value was ₹ 650. She paid 0.1% brokerage for each trading done. Find the percent of profit or loss in the share trading. (Write your answer to the nearest integer)

Solution:

For purchasing shares:

Here, FV = ₹ 100, MV = ₹ 660, Number of shares = 22, rate of brokerage = 0.1%

Sum invested = MV \times Number of shares

$$= 660 \times 22$$

$$= ₹ 14,520$$

Brokerage = 0.1 % of sum invested

$$= 0.1100 \times 14520 = ₹ 14.52$$

\therefore Amount invested for 22 shares

= Sum invested + Brokerage

$$= 14520 + 14.52$$

$$= ₹ 14534.52$$

For dividend:

Rate of dividend = 20%

∴ Dividend per share = 20 % of FV

$$= \frac{20}{100} \times 100 = ₹ 20$$

$$\begin{aligned} \therefore \text{Dividend of 22 shares} &= 20 \times 22 \\ &= ₹ 440 \end{aligned}$$

For selling shares:

MV = ₹ 650, rate of brokerage = 0.1%

$$\begin{aligned} \text{MV of 22 shares} &= 22 \times 650 \\ &= ₹ 14300 \end{aligned}$$

Brokerage = 0.1 % of 14300

$$= \frac{0.1}{100} \times 14300 = ₹ 14.30$$

Smt. Anagha income

= Dividend + MV of 22 shares – Brokerage

$$= 440 + 14300 - 14.30$$

$$= ₹ 14725.7$$

Since, income > Amount invested

∴ Profit is gained.

$$\begin{aligned} \therefore \text{Profit} &= \text{Income} - \text{Amount invested} \\ &= 14725.7 - 14534.52 \\ &= ₹ 191.18 \end{aligned}$$

$$\begin{aligned} \text{Profit Percentage} &= \frac{\text{Profit}}{\text{Amount invested}} \times 100 \\ &= \frac{191.18}{14534.52} \times 100 = 1.31 \% \end{aligned}$$

∴ Percentage of profit in the share trading is 1 % (nearest integer).

Alternate Method:

For purchasing share:

Here, FV = ₹ 100, MV = ₹ 660, Number of shares = 22, rate of brokerage = 0.1%

Sum invested = MV × Number of shares

$$= 660 \times 22$$

$$= ₹ 14,520$$

Brokerage = 0.1 % of MV

$$= 0.1100 \times 660 = ₹ 0.66$$

Amount invested for 1 share = 660 + 0.66

$$= ₹ 660.66$$

For dividend:

Rate of dividend = 20%

$$\text{Dividend} = 20\% \text{ of FV} = \frac{20}{100} \times 100 = ₹ 20$$

For selling share:

MV = ₹ 650, rate of brokerage = 0.1%

Brokerage = 0.1 % of MV

$$= 0.1100 \times 650 = ₹ 0.65$$

Amount received after selling 1 share

$$= 650 - 0.65 = 649.35$$

∴ Amount received including dividend

= selling price of 1 share + dividend per share

$$= 649.35 + 20$$

$$= ₹ 669.35$$

Since, income > Amount invested

∴ Profit is gained.

$$\therefore \text{profit} = 669.35 - 660.66 = ₹ 8.69$$

$$\text{Profit Percentage} = \frac{8.69}{660.66} \times 100 = 1.31\%$$

∴ Percentage of profit in the share trading is 1 % (nearest integer).