

Unit 7

FINANCIAL ARITHMETIC

EXERCISE NO. 7.1

1. Find property tax on the property at rate mentioned below.

(i) Property worth Rs. 286,400.

Solution:

$$\text{Rs.} = 286,400$$

$$\text{Rate} = 5\%$$

$$\begin{aligned} &= \frac{5 \times 286,400}{100} \\ &= \frac{1432000}{100} \end{aligned}$$

$$\text{Ans:} = 14320$$

(ii) Property Worth Rs. 957,900.

Solution:

$$\text{Rs.} = 957,900$$

$$\text{Rate} = 2\%$$

$$\begin{aligned} &= \frac{2 \times 957,900}{100} \\ &= \frac{1915800}{100} \end{aligned}$$

$$\text{Ans:} = 19158$$

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(iii) Property worth Rs. 814,500 .

Solution:

$$\text{Rs.} = 814500$$

$$\text{Rate} = 3\%$$

$$= \frac{3 \times 814500}{100}$$

$$= 2443500$$

$$= 24435$$

$$\text{Ans:} = 24435$$

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(iv) Property Worth Rs. = 234000

Solution:

$$\text{Rs.} = 234000$$

$$\text{Rate} = 1.4\%$$

$$= \frac{1.4 \times 234,000}{100}$$

$$= 3276000$$

$$\text{Ans:} = 3276$$

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(v) Property worth Rs = 2,050,000

Solution:

$$\text{Rs} = 2,050,000$$

$$\text{Rate} = 1.6\%$$

$$= \frac{1.6 \times 2,050,000}{100}$$

$$= 32800$$

$$\text{Ans:} = 32800$$

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B. Find the worth of the property is the following when.

(i) Tax paid on the property is Rs. = 25,500 at rate of 2%.

Solution:

Paid tax Rs. = 25,500

Rate = 2%

$$\begin{aligned} &= \frac{50}{100} \times \frac{25,500}{2} \\ &= 50 \times 25,500 \end{aligned}$$

Ans: = 1275000

(ii) Tax paid on the property Rs. = 35900 at rate of 4%.

Solution:

Paid tax Rs. = 35,900

Rate = 4%

$$\begin{aligned} &= \frac{25}{100} \times \frac{35,900}{4} \\ &= 25 \times 35,900 \end{aligned}$$

Ans: = Rs. 987500

(iii) Tax paid on the property is Rs. = 4800 at rate of 5%.

Solution:

Paid tax Rs. = 4800

Rate = 5%

$$\begin{aligned} &= \frac{20}{100} \times \frac{4800}{5} \end{aligned}$$

Ans: = Rs 96000

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(iv) Tax paid on the property is Rs. 8500 at rate of 3.5%.

Solution:

Paid tax Rs. = 8500

Rate = 3.5%

$$= \frac{28.5}{100} \times \frac{8500}{3.5}$$

Ans: = Rs. 283.333

(v) Tax paid on property = 11,700 at the rate of 1.5%. Tax paid on the property = 11.700 rate = 1.5.

Solution:

Paid Tax Rs. = 11.700

Rate = 1.5%

$$= \frac{66.66}{100} \times \frac{11700}{1.5}$$

$$= 66.66 \times 11700 = 780000$$

Ans: = Rs. 780,000

C. Find rate percentage of property tax when.

(i) The property tax paid is Rs. = 30,000 and worth of the property is Rs. = 1,800,000.

Solution:

Rs. = 1,800,000

$$= \frac{1800,000}{30,000} = 60$$

$$= \frac{100}{60} = 1.67$$

Ans: = 1.67 %

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(ii) The property tax paid is Rs. 33000 and the worth of the property is 3,300,000.

Solution:

$$\begin{aligned}\text{Rs.} &= 3,300,000 \\ &= \frac{3,300,000}{33,000} = 100 \\ &= \frac{1000}{100} = 10\%\end{aligned}$$

Ans: = 10%

(iii) The property tax paid is Rs. 12000 and the worth of the property is Rs. 600,000.

Solution:

$$\begin{aligned}\text{Rs.} &= 600,000 \\ &= \frac{600,000}{12000} = 50 \\ &= \frac{100}{50} = 2\%\end{aligned}$$

Ans: = 2%

(iv) The property tax paid is Rs. 8676 and the worth of the property is Rs. 433,800.

Solution:

$$\begin{aligned}\text{Rs.} &= 433,800 \\ &= \frac{433,800}{8676} = 50 \\ &= \frac{100}{50} = 2\%\end{aligned}$$

Ans: = 2%

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(v) The property tax paid is Rs. 12000 and the worth of the property is Rs. 600,000.

Solution:

$$\begin{aligned} \text{Rs.} &= 600,000 \\ &= \frac{600,000}{12000} = 50 \\ &= \frac{100}{50} = 2\% \end{aligned}$$

Ans: = 2%

D. Answer the following:

(i) What is tax?

Ans: Tax :

A fee charged (levied) by the government on a product, income or activity is called tax.

(ii) What is the purpose of taxation?

Ans: The Purpose of Taxation:

The purpose of taxation is to finance government expenditure. One of the most important use of taxes is to finance public goods & services.

(iii) Explain property tax?

Ans: Property Tax:

Property tax is a levy issued by a government on a person's real or personal property. The property assessed to give it a value and then that value tax. It is generally paid at a flat rate of 2%.

(iv) Mention any four properties which are exempted from property tax.

- Ans:** (i) Govt. Owned properties
(ii) Residential building on land not over 120 Sqr yard.
(iii) Libraries, Parks, Playground, Place of worship, Cemetery etc.
(iv) Properties owned by widow disabled person or orphaned children within some specified limit.

EXERCISE 7.2

1. The cost of a Parker pen is 875. Find GST charged on it at the rate of 17%.

Solution:

$$\text{Cost of Pen} = 875$$

$$\text{Rate of GST} = 17\%$$

$$= 0.17 \times 875$$

$$\text{GST charged} = 148.75$$

$$\text{Ans:} = \text{Rs. } 148.75$$

2. The cost of a mobile is Rs. 4,850. Find GST at the rate of 17%.

Solution:

$$\text{Cost of mobile} = 4,850$$

$$\text{Rate of GST} = 17\%$$

$$= 0.17 \times 4,850$$

$$\text{GST charged} = 824.50$$

$$\text{Ans:} = \text{Rs. } 824.50$$

3. The total cost of cosmetic items is Rs. 14976. If the actual cosmetic items cost is Rs. 12800. Find the amount of GST.

Solution:

$$\text{Actual Cost Rs.} = 12,800$$

$$\text{Rate of GST} = 17\%$$

$$\text{Actual Cost} \times \text{GST} = 0.17 \times 12,800$$

$$\text{GST charged} = 2176$$

$$\text{Ans:} = \text{Rs. } 2176$$

4. A microwave costs Rs. 15200. Rate of GST is 17% charged on it. Find the amount of GST and total cost of the microwave.

Solution:

$$\text{Cost Rs.} = 15200$$

$$\text{Rate of GST} = 17\%$$

$$\text{Amount of GST} = 0.17 \times 15200 = 2584$$

$$\text{Cost of microwave} = 15200 + 25,584 = 17784$$

$$\text{Ans: Amount of GST} = 2584$$

$$\text{Total cost Rs.} = 17784$$

5. Abdullah purchased a three piece suit of cost Rs. 7,800. Find the total cost and amount of GST at rate of 17%.

Solution:

$$\text{The cost of suit Rs.} = 7800$$

$$\text{Rate of GST} = 17\%$$

$$\text{Amount of GST} = 0.17 \times 7800$$

$$\text{Rs.} = 1326$$

$$\text{Total cost of suit} = 1326 + 7800$$

$$\text{Rs} = 9126$$

$$\text{Ans: Total cost Rs.} = 9126,$$

$$\text{GST RS} = 1326$$

6. A refrigerator is sold inclusive of 17% GST for Rs. 35,375. Find the actual cost of refrigerator.

Solution:

Cost of refrigerator = 35,375

GST = 17%

$$\text{Actual cost of} = \frac{35375}{1.17}$$

Ans: Refrigerator Rs = 30235

7. A person purchased a dishwasher for Rs. 61,000 inclusive 17% GST. Find the cost of dishwasher excluding GST. Also find the amount of GST.

Solution:

The cost of dishwasher = 61,000

Rate of GST = 0.17 = 17%

$$\text{The cost of dishwasher} = \frac{61,000}{1.17} = 52137$$

Amount of GST = Rs. 52137 $\times$ 0.17 = 8863

Ans: The cost of dishwasher Rs. = 5,2137
and the amount of GST = 8,863

8. Ms Alia paid Rs. 2,720 as GST at the rate of 17% on the purchase of a decoration piece. Find the cost of decoration piece exclusive of GST.

Solution:

$$\text{Paid as GST Rs} = 2,720$$

$$\text{Rate of GST} = 17\%$$

$$= 17\% = 0.17$$

$$= \frac{2,720}{0.17} = 16000$$

$$\text{Ans:} = \text{Rs.} = 16000$$

9. An electric company charges Rs. 1547 GST on the consumption of electricity of the cost Rs. 9,100. Find the rate of GST.

Solution:

$$\text{Charge GST Rs.} = 1547$$

$$\text{Consumption Cost Rs.} = 9,100$$

$$\text{Rate of GST} = \frac{1547}{9100} = 0.17$$

$$= 0.17 = \frac{17}{100}$$

$$= \frac{17}{100} = 17\%$$

$$\text{Ans:} = 17\%$$

10. The cost of a shirt excluding tax is Rs. 2,560 and the amount of GST on it is Rs. 436. Find rate of GST.

Solution:

The cost of shirt = 25600

Amount of GST = 436

$$\begin{aligned}\text{Rate of GST} &= \frac{436}{2560} = 0.17 \\ &= 0.17 = \frac{17}{100} \\ &= \frac{17}{100} = 17\end{aligned}$$

Ans: = Rate of GST = 17%

EXERCISE 7.3

1. A retailer pays to its whole saler Rs. 1860 for a Helmet and then he sell it to consumer for Rs. 2,650. What is the markup rate and his profit.

Solution:

Profit = Selling Price – Cost Price

Profit = 2,650 – 1,860 = 790

Profit rate = $\frac{\text{Profit}}{\text{Cost Price}} \times 100$

$$\text{Profit Rate} = \frac{790}{1860} \times 100 = \frac{7900}{186} = 42.7$$

Ans: = The profit rate is 42.7% and his profit is Rs. 790

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2. A shopkeeper sells a microwave oven for Rs. 6700. Find the markup rate and his profit if the cost price of microwave oven is Rs. 6250.

Solution:

$$\begin{aligned}\text{Profit} &= \text{SP} - \text{CP} \\ &= 6700 - 6250 = 450\end{aligned}$$

$$\text{Profit rate} = \frac{\text{Profit}}{\text{CP}} \times 100$$

$$\text{Profit rate} = \frac{450}{6250} \times 100 = \frac{4500}{625} = 7.2$$

Ans: Profit rate 7.2%, Profit Rs. 405

3. A retailer uses markup rate of 65% on the computer accessories. Find the S.P if the cost of a certain accessory Rs. 1520.

Solution:

$$\text{SP} = \text{CP} (1 + \text{profit rate})$$

$$\text{SP} = ?$$

$$\text{CP} = 1520$$

$$\text{Profit rate} = 65\% = 0.65$$

$$\begin{aligned}\text{SP} &= 1520 (0.65 + 1) \\ &= (1520 \times 1.65) = 2508 \\ &= 2508\end{aligned}$$

Ans: = SP = RS. 2508

4. The cost price of a certain novel is Rs. 1,100. Find selling price of the novel at 65% markup rate.

Solution:

$$SP = CP (1 + \text{markup})$$

$$SP = ?$$

$$\text{markup rate} = 65\% = 0.65$$

$$SP = (0.65 + 1) 1100$$

$$SP = (1.65 \times 1100) = 1,815$$

Ans: $SP = \text{Rs. } 1,815$

5. A mobile company uses a markup rate of 55% on the cost of each mobile phone that cost Rs. 2,260. Find the selling price of the mobile phone.

Solution:

$$SP = CP (1 + \text{markup rate})$$

$$SP = ?$$

$$CP = 2,260$$

$$\text{markup rate} = 55\% = 0.55$$

$$SP = (2,260 \times 1.55) = 3503$$

Ans: $SP = \text{Rs. } 3503$

6. A mobile phone company uses a 45% markup rate. Find the cost of a unit that sells for Rs. 4785.

Solution:

$$SP = \text{Rs. } 4785$$

$$CP = ?$$

$$\text{Markup rate} = 45\% = 0.45$$

$$SP = CP (1 + M/r)$$

$$4785 = CP (0.45 + 1)$$

$$CP = \frac{4785}{1.45} = 3300$$

Ans: $CP = \text{Rs. } 3300$

7. The markup rate on the selling price of a calculator that is Rs. 1,230 is 50%. Find the cost price of calculator.

Solution:

$$CP = ?$$

$$SP = \text{Rs. } 1230$$

$$\text{Markup rate} = 50\%$$

$$SP = CP (1 + \text{markup})$$

$$SP = 1230 (1 + 0.55)$$

$$CP = \frac{1230}{1.55} = 820$$

Ans: $CP = \text{Rs. } 820$

8. A stationer uses a markup of 60% on each item that he sell. If selling price of an item is Rs. 144. Find the cost price of the item.

Solution:

$$SP = \text{Rs. } 144$$

$$CP = ?$$

$$\text{Markup rate} = 60\% = 0.60$$

$$SP = CP (1 + \text{markup rate})$$

$$CP = \frac{144}{1.60} = 90$$

Ans: $CP = \text{Rs. } 90$

9. A home-based small business in Rs. 25000 a month in sale of baby clothing and accessories the cost of goods sold including overhead add up to Rs. 10550. Calculate the net profit percentage.

Solution:

$$SP = \text{Rs. } 25,000$$

$$\text{Cost of goods sold} = 10,550$$

$$\text{Profit percentage} = ?$$

$$SP - \text{expenditure} = \text{profit}$$

$$25,000 - 10,550 = 14,450 = \frac{14,450}{25,000} \times 100 = 57.8$$

$$\text{Ans: Net profit percentage} = 57.8$$

10. A certain business has Rs. 2,500,000 of sales in one month sales returns of Rs. 15,000 the goods sold are of cost 505,000 and overhead expenses of Rs. 580,000. Calculate the profit rate percent.

Solution:

$$\text{Sale} - \text{returns} = \text{Actual sale}$$

$$= 2,500,000 - 15,000 = 2,485,000$$

$$\text{Actual sale} - \text{cost} - \text{expenses} = \text{profit}$$

$$= 2,485,000 - 505,000 - 580,000 = 1,400,000$$

$$= \frac{1,400,000}{2,485,000} \times 100 = 77.34$$

$$\text{Ans: Profit rate percent} = 77.34$$

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11. A medicine company has 1,850,000 of sales in the previous month. The sale returns of Rs. 85,000 the medicines sold were of cost 850,000. The administrative expenses are of Rs. 550,000 calculate the net profit percentage of the company.

Solution:

Sale – returns = Actual sale

$$1,850,000 - 85,000 = 176500$$

Actual sale – cost - expenses = profit

$$1765000 - 850,000 - 550,000 = 365000$$

$$= \frac{36000}{1765000} \times 100 = 20.67$$
$$= 20.67$$

Ans: = 20.67 net profit percent

EXERCISE 7.4

1. Qasim bought a car Rs. 450,800 from a bank loan on instalments at the markup rate of 12% per annum. Find sale price of the car, if the time period is 3 years.

Solution:

$$P = 450,800 \text{ Rs}$$

$$T = 3 \text{ year}$$

$$R = 12\%$$

$$\text{S.P of car} = ?$$

$$= \frac{R \times P \times T}{100}$$

$$= \frac{12 \times 450,800 \times 3}{100} = 613000$$

$$\text{Ans:} = \text{SP of the car} = \text{Rs. } 613000$$

2. Najma bought a golden ornament set for Rs. 1,75,500 on installments at the markup rate of 10% per annum. Find sale price of the set if the time period is 9 month.

Solution:

$$P = 175,500$$

$$T = 9 \text{ month}$$

$$R = 10\%$$

$$\text{SP} = ?$$

$$\frac{9 \text{ month}}{12} = \frac{3}{4} = 188,662.50$$

$$= \frac{R \times P \times T}{100} = \frac{10 \times 175,500 \times 3}{100 \times 4}$$

$$\text{Ans:} = \text{SP of golden set} = \text{Rs. } 188,662.50$$

3. Shazia sold his mobile phone for Rs. 16,900 and got 15% markup rate per annum. Find her markup where the period is 219 days.

Solution:

$$\text{Markup} = \frac{R \times P \times T}{100} = \frac{219}{365} = 219 \text{ day/1 year}$$

$$\text{Markup} = \frac{15 \times 16900 \times 219}{100 \times 365} = 1431$$

Ans: Markup = Rs. = 1431

4. If 15% markup on a colour T.V set is 8,500 for $1\frac{1}{2}$ years. Find the cost price of the T.V set.

Solution:

$$P = 8,500$$

$$R = 15\%$$

$$T = 1\frac{1}{2} \text{ years} = \frac{18}{12}$$

$$= \frac{15 \times 8500 \times 18}{100 \times 12} = 113,333.30$$

Ans: = Cost price of T.V = Rs. 113,333.30

5. Find the missing quantities by using formula:

Solution:

S. No.	Markup	Principal	Time Period	Markup Rate
(i)	Rs. 192,000	Rs. 800,000	1 years	12%
(ii)	Rs. 10,000	Rs. 500,000	0.2 year	10%
(iii)	Rs. 6,600	Rs. 30,000	2 years	11%
(iv)	Rs. 24,000	Rs. 200,000	1½ year	8%
(v)	Rs. 800	Rs. 4,000	2½ year	12%
(vi)	Rs. 45,000	Rs. 2250	73 days	10%

EXERCISE 7.5

1. A person holds an amount of Rs. 500,000 for the whole year. Is he sahib-e-nisab? If yes find the amount of Zakat he has to pay.

Solution:

Total amount 5,000,000

Zakat = 2.5%

$$\begin{aligned} &= \frac{2.5}{100} \times 500,000 \\ &= 12500 \end{aligned}$$

Ans: = Yes/He has to pay Rs. 12500 as Zakat.

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2. **A salaried person possess Rs. 200,000 and 3 tolas of pure gold. Find the zakat to be paid by him . Rate of gold is Rs. 47,400 per tola.**

Solution:

$$1 \text{ Tola gold} = 47,400$$

$$3 \text{ Tola gold} = 47400 \times 3 = 142,200$$

$$7.5 \text{ Tola gold} = 47400 \times 7.5 = 35,5500$$

$$\text{Person has Rs.} = 200,000$$

$$\text{Amount of gold} = \text{Rs. } 142,200$$

$$\text{Total amount} = 20,000 + 142200 = 342200$$

$$\text{Amount of 7.5 Tola gold} = 35,5500$$

$$\text{He has total amount} = 34,2200$$

$$\text{Sahib-e-nisab amount} = 355500$$

$$\therefore \text{ So He is not Sahib-e-Nisab}$$

$$\text{Ans:} = \text{He is not Sahib-e-Nisab}$$

3. **Al lady doctor possesses ornoment of worth Rs. 500,000 and saved Rs. 150,000 in the whole year. Find the amount of Zakat due upon her.**

Solution:

$$\text{Ornament amount of worth} = \text{Rs. } 500,000$$

$$\text{Saved amount in the whole yera} = 150,000$$

$$\text{Total amount} = 500,000 + 150,000$$

$$= 650,000$$

$$\text{Zakat} = 2.5\%$$

$$\text{Due Zakat} = \frac{2.5}{100} \times 650,000 = 16.250$$

$$\text{Ans:} = \text{Rs. } 16,250$$

4. A business man paid Rs. 2,500 as Zakat find his saving for the whole year.

Solution:

$$\text{Paid Zakat} = \text{Rs. } 2,500$$

$$\text{Ratio of Zakat} = 2.5\%$$

$$\text{Saving whole year} = ?$$

$$\text{Paid Zakat saving} \times 2.5\% = 0.025$$

$$\text{Saving whole year} = \frac{2,500}{0.025} = 820,000$$

$$\text{Ans:} = \text{Rs. } 820,000$$

5. A farmer pays Rs. 10,000 as Ushr. Find the value of the crop he produced. Rate of Ushr is 5%.

Solution:

$$\text{Paid Ushr} = \text{Rs. } 10,000$$

$$\text{Rate of Ushr} = 5\% = 0.05$$

$$\text{Value of Crop} = ?$$

$$\text{Value of Crop} = \frac{10,000}{0.05} = 20,000$$

$$\text{Ans:} = \text{Rs. } 20,000$$

- 6. A farmer produces 15,000 kg of sugarcane. Find his amount of Ushr at the rate of 5%. The rate of sugarcane is Rs. 5.25 per kg.**

Solution:

Value of 15,000 kg sugarcane at Rs. 5.25

Per kg = $15000 \times 5.25 = 78750$

Total value of sugarcane = 78750

Rate of Ushr 5% = 0.05

Amount of Ushr = $0.05 \times 78,750 = 3937.5$

Ans: = Amount of Ushr is Rs. = 3937.50

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- 7. Juman exports oranges of his garden for Rs. 5,000,000. Find the amount of Ushr at the rate of 5%.**

Solution:

Value of oranges = Rs. 5,000,000

Rate of Ushr = 5% = 0.05

Amount of Ushr = $0.05 \times 5,000,000$

= 250,000

Ans: = Rs. 250,000

8. Kamil produces 1,500 kg of wheat on one part of his land and 1,200 kg of rice on the other part of his land. Find the amount of ushr at the rate of 5%. The rate of wheat is Rs. 30 per kg and rate of rice is Rs. 65 per kg.

Solution:

$$\text{Ushr} = \text{Total value of produce} \times 5\%$$

$$\text{Value of 1,500 kg wheat at Rs. 30 per kg}$$

$$= \text{Rs } (1,500 \times 30) = \text{Rs. } 45000$$

$$\text{Value of 1,200 kg rice at Rs. 65 per kg}$$

$$= \text{Rs } (1200 \times 65) = \text{Rs. } 78000$$

$$\text{Total value of wheat and rice Rs. } (45000 + 78000)$$

$$= \text{Rs. } 123000$$

$$\text{Amount of Ushr} = 5\% \times 123000$$

$$= 0.05 \times 123000 = 6150$$

$$\text{Ans:} = \text{Rs. } 6,150$$

REVIEW EXERCISE 7

1. The cost of a mobile phone is 8,500, The seller charge 17% GST on the cost. Find sells tax livied.

Solution:

Cost of mobile Rs. = 8,500

Rate of GST = 17%

Sells tax = ?

$$\text{Sells tax} = 0.17 \times 8,500 = 1445$$

Ans: = Rs. 1445

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2. An imported LCD TV is sold for Rs. 55,800 inclusive of GST. Find the cost of LCD.

Solution:

Sell price of LCD = Rs. 55,800

GST = 17%

$$\text{Cost of LCD without tax} = \frac{55800}{1.17} = 47692.308$$

Ans: = Rs. = 47692.308

- 3. An electric company charges Rs. 16,750 as electric charge from consum. Find the amount of GST.**

Solution:

Electric charges = Rs. 16,750

Rate of GST = 17%

Amount of GST = ?

Amount of GST = $0.17 \times 16750 = 2847.50$

Ans: = Rs. 2847.50

- 4. A person paid Rs. 16,989 as GST at the rate of 17% on the purchase of room set. Find the cost of room set exclusive of GST.**

Solution:

Paid amount as GST = 16,989

Rate of GST = 17% = 0.17

Cost of room set exclusive GST = $\frac{16989}{0.17} = 99935.30$

Ans: = Rs. = 99935.30

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5. A business man gets loan of Rs. 1,700,000 from a bank at the markup rate of 12.5% per anum. Calculate teh markup for a period of $1\frac{1}{2}$ years.

Solution:

$$P = \text{Rs. } 1700000$$

$$T = 1\frac{1}{2} \text{ years } \left(\frac{18}{12} \text{ months} \right)$$

$$R = 12.5\%$$

$$\text{Markup} = ?$$

$$\text{Markup} = \frac{R \times P \times T}{100}$$

$$\text{Markup} = \frac{12.5 \times 1700000 \times 18}{100 \times 12} = 318750$$

$$\text{Ans:} = \text{Rs. } 31,875$$

6. The markup paid to bank by a lady doctor is Rs. 2850. The period is 6 months and the markup rate is 12%. Find principal amount.

Solution:

$$P = \text{Rs. } 2850$$

$$T = 6 \text{ month } \left(\frac{1}{2} \text{ years} \right)$$

$$R = 12\%$$

$$\text{Principal amount} = ?$$

$$\text{Principal amount} = \frac{R \times P \times T}{100}$$

$$\text{Principal amount} = \frac{12 \times 2850 \times 1}{100 \times 2}$$

$$\text{Ans:} = \text{Rs. } 47500$$

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7. A senior citizen deposits an amount of Rs. 500,000 in a bank. Find the markup when the markup rate is 10% and the time period is $2\frac{1}{2}$ years.

Solution:

$$P = \text{Rs } 500,000$$

$$R = 10\%$$

$$T = 2\frac{1}{2} \text{ years}$$

$$\text{Markup} = ?$$

$$\begin{aligned} \text{Markup} &= \frac{R \times P \times T}{100} = \frac{10 \times 500,000 \times 2.5}{100} \\ &= 12500 \end{aligned}$$

$$\text{Ans:} = \text{Rs. } 12,500$$

8. A car dealer uses 35% markup rate. Find the cost of a car that sells for Rs. 1,051,000.

Solution:

$$\text{Sells cost Rs.} = 1,051,000$$

$$\text{Cost of car} = ?$$

$$\text{Markup} = 35\% (0.35)$$

$$\text{Sells cost} = \text{cost of car (rate of markup + 1)}$$

$$\text{Cost of car} = \frac{1,051,000}{1.35} = 778,518.52$$

$$\text{Ans:} = \text{Rs. } 778,518.52$$

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9. After a whole year a business man saved Rs. 95,000 and has a stock of Rs. 500,000. Find the Zakat due on him.

Solution:

Saving of whole year = Rs. 95,000

Total amount = 500000 + 95000 = 595000

Rate of Zakat = 2.5%

$$\text{Due Zakat} = \frac{2.5}{100} \times 595,000 = 14875$$

Due Zakat = Rs. 14875

Ans: = Rs. 14,875

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10. A lady teacher has gold ornaments of value 400,000 rupees. Her annual saving is an amount of Rs. 45,000. Find the Zakat due upon her.

Solution:

Value of gold ornament = 400,000 rupees

Annual saving = Rs. 45,000

Total amount = 400,000 + 45,000 = 445,000

Rate of Zakat = 2.5%

Due Zakat = ?

$$\text{Due Zakat} = \frac{2.5}{100} \times 445,000 = 11,125$$

Ans: = Rs. 11,125

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11. A gentleman paid an amount of Rs. 12,500 as zakat. Find his amount on which he paid the zakat.

Solution:

Paid amount of zakat Rs. = 12,500

Rate of zakat = 2.5% (0.025)

Amount of paid zakat = ?

Amount paid = 12,500 × 0.025

Amount paid = $\frac{12,500}{0.025} = 500,000$

Ans: = Rs. 500,000

12. A farmer produces 5,000 kg of wheat and vegetables of worth Rs. 48,000. Find the amount of Ushr due upon him at the rate of 5%. The rate of wheat is Rs. 35 per kg.

Solution:

Cost 500 kg wheat Rs. 35 per kg = 35 × 5000 = 17500

Total cost of wheat and vegetables = 48000 + 17500 = 223000

Rate of ushr 5% = $\frac{5 \times 223000}{100} = 11150$

Ans: = 111,50

13. A farmer pays Rs. 2000 as ushr. Find the value of the crop he produced. Rate of ushr is 5%.

Solution:

Paid amount as ushr = Rs. 2000

Rate of ushr = 5%

Value of crop = $\frac{2000 \times 100}{5} = \frac{40000}{5}$

Value of crop = Rs. 40000

Ans: = Rs. 40000

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