

Q15
1A) Return on Investment for 2017 = Margin

Q15 Question
15

$$\text{Margin} = (\text{Net Income} / \text{Sales}) \times 100$$

$$\text{Net Income for 2017} = \$148,000$$

$$\text{Sales for 2017} = \$1,780,000$$

$$\text{Margin} = (\$148,000 / \$1,780,000) \times 100 = 8.31\%$$

$$\text{Total Turnover} = (\text{Sales} / \text{Average Total Assets})$$

$$\text{Sales for 2017} = \$1,780,000$$

$$\text{Average Total Assets} = (\text{Total Assets in 2016} + \text{Total Asset in 2017}) / 2$$

$$= (\$1160,000 + \$1248,000) / 2 = \$1204,000$$

$$\text{Turnover} = (\$1,780,000 / \$1204,000) = 1.478$$

$$\text{Return on Investment} = \text{Margin} \times \text{Turnover} = 8.31\% \times 1.478 = 12.3\%$$

B) Return on equity Ratio for 2017 = $(\text{Net Income} / \text{Average shareholders' equity}) \times 100$

$$\text{Net Income for 2017} = \$148,000$$

$$\text{Average Owners' Equity} = (\text{Total shareholders' Equity for 2016} + \text{Total Shareholders' Equity for 2017}) / 2$$

$$= (\$664,000 + \$558,000) / 2$$

$$= \$611,000$$

$$\text{Return on Equity Ratio} = (\$148,000 / \$611,000) \times 100 = 24.22\%$$

C) Working Capital for 2017 = Current Assets - Current Liabilities

$$\text{Current Assets} = \$760,000$$

$$\text{Current Liabilities} = \$410,000$$

$$\text{Working capital} = \$760,000 - \$410,000 = \$350,000$$

D) Current Ratio for 2017 = Current Assets / current liabilities

$$= \$760,000 / \$410,000 = 1.85$$

E) Acid Test Ratio for 2017 = $(\text{Cash} + \text{Account Receivable} / \text{current liabilities})$

$$(\$90,000 / \$268,000) / \$410,000 = 0.87$$

2A) Margin for firm X = $(\text{Net Income} / \text{Sales}) \times 100$
 $= (\$15,000 / \$300,000) \times 100 = 5\%$

Question 15

B) Turnover for firm X = $\text{Sales} / \text{Average Total Assets}$

Sales = \$300,000

Average total Asset = \$125,000

Turnover = $\$300,000 / \$125,000 = 2.4$

C) Return on Investment for firm X = $\text{margin} \times \text{Turnover}$

$5\% \times 2.4 = 12\%$

Question 17

Calculate ROI

Return on Investment indicates the performance of the investment. It is very useful to compare with different investment and to select best investment.

To calculate return on investment, the benefit from the investment i.e. income or return by the original cost of investment has to be considered

Return on Investment or ROI is calculated as the product of margin and turnover as follows:

$\text{ROI} = \text{Margin} \times \text{Turnover}$

$\text{ROI} = \frac{\text{Net Income}}{\text{Sales}} \times \frac{\text{Sales}}{\text{Average total Assets}}$

ROI is calculated as the product of margin of 7%, turnover of 1.2, and sales of \$2,100,000

$1.2 \times 7 = 0.084$

$\text{ROI} = 0.084 \times 100$
 8.4%

$\text{ROI} = 8.4\%$

Calculate Net Income

$0.084 = \frac{\text{Net Income}}{\$2,100,000} \times 1.2$

cont. of Question 17

Net income can be solved for by plugging in the values of ROI of 0.084 Sales of 2,100,000 and turnover of 1.2 into the formula for ROI as follows

$$0.084 = \frac{\text{Net Income}}{2,100,000} \times 1.2$$

$$\text{Net Income} = \frac{0.084 \times 2,100,000}{1.2}$$

$$\text{Net Income} = \$1,470,000$$

Therefore, Net income is \$1,470,000

Calculate Average total assets

$$\text{Average total assets} = \frac{0.084 \times \$2,100,000}{0.07}$$

$$\text{Average total assets} = \$2,520,000$$

Question 19

Working capital = Current assets - Current liabilities

$$\begin{aligned} \text{Current Assets of Firm D} &= \text{Account Receivable} + \text{cash} + \text{merchandise inventory} \\ &= \$4100 + \$3500 + \$2200 \\ &= 9800 \end{aligned}$$

$$\begin{aligned} \text{Current liabilities of firm D} &= \text{Account payable} + \text{Other accrued liabilities} \\ &= 5700 + 1300 \\ &= 7000 \end{aligned}$$

$$\text{Hence working capital} = 9800 - 7000 = 2800$$

CURRENT RATIO = CURRENT ASSETS / CURRENT LIABILITIES

$$\text{Current ratio} = 9800 / 7000 = 1.4$$

Transaction/Adjustment	Assets	Liabilities	stockholders' equity	Net income
1	4000 cash	4000 short term note		
2	-400 cash 1500 inventory	400 Account payable		
3		2000 wages payable		-2000 wage expense
4	900 cash -700 inventory			900 Sales revenue -700 costs of goods sold.
5	-1400 cash			-1400 rent expense
6	4000 cash 9000 Account receivable			13000 Service revenue
7a	-1040 cash 1040 Supplies			
b	-800 supplies			-800 Supplies expense
8	480 Interest receivable			480 Interest income

QUESTION 19.

Question 58

Balance of allowance, Dec 31		21900
less		
Balance of allowance, Jan 1	15000	
less: Written off during the year	-10500	5100
Bad debt expense recognised during the year		16800

Question 1b

Allowance for doubtful accounts	3000	
Bad debt expense		3000
To record balance as required) $21900 - 18900$		

Question 59.

Question 2 59 (Part A)

Balance per bank statement	5796.00	
Add: Error to be corrected	840.00	
Add: Deposits in transit	424.00	
	<u>6560.00</u>	
less: outstanding checks	-330.00	
Adjusted cash balance per bank:	<u>6230.00</u>	
Balance per books	6020.00	
	<u>410.00</u>	
Add: Note collected by bank	<u>6436.00</u>	
less	34.00	
Bank charge	-112.00	
NSF check		
Adjusted cash balance per books	<u>6230.00</u>	

Part B

Jun 30	cash	410.00	
	Notes Receivable		382.00
	Interest income		28.00
Jun 30	Miscellaneous expense	34.00	
	cash		34.00
Jun 30	Accounts Receivable	172.00	
	cash		172.00

Question 61

$$\begin{aligned} \text{Ending Inventory} &= \text{Beginning Inventory} + \text{units purchased} - \text{units sold} \\ &= 600 \text{ units} + 3000 \text{ units} - 2400 \text{ units} \\ &= 1200 \text{ units} \end{aligned}$$

Calculation of weighted Average Rate.

Particulars	Number of Units	Rate per unit (in ₹)	cost (in ₹)
Opening inventory	600	8.00	4,800
Purchases	1200	8.40	10,080
Purchases	800	8.80	7,040
Purchases	1,000	9.00	9,000
Total	3,600		30,920

$$\begin{aligned} \text{Weighted average rate} &= \frac{\text{Total cost of beginning inventory and purchases made during the month}}{\text{Total number of units inventory and units purchased during the month}} \end{aligned}$$

$$= 30,920 / 3600 \text{ units}$$

$$= 8.59 \text{ per unit (Approximately)}$$

$$\text{Value of ending inventory} = \text{units in ending inventory} \times \text{Weighted average cost}$$

$$= 1,200 \text{ units} \times 8.59 \text{ per unit}$$

$$= 10,308$$

$$\begin{aligned}
 \text{Value of cost of Goods solds} &= \text{Units sold} \times \text{Weighted average cost} \\
 &= 2,400 \text{ units} \times 8.59 \text{ per unit} \\
 &= 20616
 \end{aligned}$$

a (2)

Value of ending inventory

Particulars	Number of units	Rates per unit (₹)	Cost (in ₹)
Purchases	800	8.80	1,760
Purchases	1,000	9.00	9,000
Total	1,800		10,760

The value of ending inventory under FIFO method is 10,760

Value of cost of Goods solds.

Particulars	Number of units	Rates per units (₹)	Cost (in ₹)
Opening inventory	600	8.00	4,800
Purchases	1,200	8.40	10,080
Purchases	600	8.80	5,280
Total	2,400		20,160

Continuation Question 61

The value of cost of Goods sold under FIFO method is 20,160

Value of ending inventory

Particulars	Number of units	Rate per unit (in \$)	Cost (in \$)
Opening inventory	600	8.00	4,800
Purchases	600	8.40	5,040
Total	1,200		9,840

The value of ending inventory under LIFO method is 9,840

Value of Goods sold:

Particulars	Number of units	Rates per unit (in \$)	Cost (in \$)
Purchases	600	8.40	5,040
Purchases	800	8.80	7,040
Purchases	1,000	9.00	9,000
Total	2,400		21,080

The value of cost of Goods sold under LIFO method is 21,080

b) Continuation of Question G-1

Net Income = Sales - cost of Goods sold

Therefore

Sales = cost of Goods sold + Net Income
under weighted average method cost of goods sold is ₹ 20,616 and Net Income is ₹ 12,800. Therefore sales will be:

$$= ₹ 20,616 + ₹ 12,800$$

$$= ₹ 33,416$$

Calculation of Net Income under FIFO

Net Income = Sales - cost of Goods sold

$$= ₹ 33,416 - ₹ 20,160$$

$$= ₹ 13,256$$

Therefore the net income under FIFO method is ₹ 13,256

Calculation of Net Income under LIFO

Net Income = Sales - cost of Goods sold

$$₹ 33,416 - ₹ 21,080$$

$$= ₹ 12,336$$

Therefore the net income under LIFO method is ₹ 12,336.

Question 63

Account receivable

	Debit	credit	Balance
Beginning			39000
Sales	120000		159000
collections		114000	45000
written off		2000	43000
			Ending balance

Allowance for bad debts

	Debit	credit	Balance
Beginning			2400
Bad debts expense		1700	4100
written off	2000		2100
			Ending Balance