6. Periodic inventory system

By the end of this chapter you should be able to
- Differentiate between the periodic and perpetual inventory systems.
- Calculate cost of sales, gross profit and profit mark-up using the periodic inventory system.
- Record the transactions of a business using the periodic inventory system in the subsidiary journals and the general ledger.

6.1. Baseline assessment

	☺	☺	☹

1. What is the perpetual inventory system?

2. What is "cost of sales"?

3. Why is a cost of sales column used in the CRJ and DJ?

4. How is gross profit calculated?

5. Given sales and cost of sales, how is profit mark-up calculated?

6.2. Introductory role play - Smartie Traders

You will need: 2 plastic packets, a small box of Smarties, 2 sticky labels, a pencil and a calculator.

You are a business that buys and sells special Smarties that can stimulate different emotions. Since you sell many Smarties each day, you don't have time to record the cost price of each sale.

1. Place some Smarties in a bag, and label it "stock".
2. Record the time at the top of the stock sheet below.
3. Count out how many Smarties you have in your packet, and record it below.
4. Calculate the value of this stock (your "opening stock") by multiplying the quantity of each type by its price, then adding all these values together to see the total value of your stock.

Stock sheet at (time)

Type of Smarties	Quantity	Price	Value
Rejuvinating Smarties (green)		R1,50	
Love Smarties (red)		R2,00	
Clever Smarties (yellow)		R1,50	
Calming Smarties (blue)		R3,50	
Energising Smarties (purple)		R3,00	
Happy Smarties (pink)		R2,50	
Creative Smarties (orange)		R1,00	
Sleepy Smarties (brown)		R0,50	
		TOTAL	

5. Purchase some more stock – the additional Smarties you have. Count these and draw up the invoice you would have received with them, then add them to your stock bag.

Invoice   No. 127

To: Smartie Traders
Bought from: Smarties Suppliers

Item	Quantity	Price	Amount
Rejuvinating Smarties (green)		R1,50	
Love Smarties (red)		R2,00	
Clever Smarties (yellow)		R1,50	
Calming Smarties (blue)		R3,50	
Energising Smarties (purple)		R3,00	
Happy Smarties (pink)		R2,50	
Creative Smarties (orange)		R1,00	
Sleepy Smarties (brown)		R0,50	
		TOTAL	

6. It is now time to sell some stock. Transfer a handful of Smarties to your second plastic bag, label it "stock sales", and give it to your educator.

7. You have now sold some stock, but have not recorded what you sold! How could you calculate the cost of sales from the information that you do have?

8. You now need to do another stock take – count the Smarties left in your stock bag, and enter this on your stock sheet below. Calculate the value of this stock on hand (your "closing stock").

Stock sheet at (time)

Type of Smarties	Quantity	Price	Value
Rejuvinating Smarties (green)		R1,50	
Love Smarties (red)		R2,00	
Clever Smarties (yellow)		R1,50	
Calming Smarties (blue)		R3,50	
Energising Smarties (purple)		R3,00	
Happy Smarties (pink)		R2,50	
Creative Smarties (orange)		R1,00	
Sleepy Smarties (brown)		R0,50	
		TOTAL	

9. Calculate your cost of sales below:

Type of Smarties	Quantity of opening stock (1st stock sheet – see no. 4)	Quantity of purchases (shown on invoice – see no. 5)	Quantity of closing stock (2nd stock sheet – see no. 8)	Quantity of stock sold (4 + 5 – 8)	Price	Value of stock sold
Rejuvinating Smarties (green)					R1,50	
Love Smarties (red)					R2,00	
Clever Smarties (yellow)					R1,50	
Calming Smarties (blue)					R3,50	
Energising Smarties (purple)					R3,00	
Happy Smarties (pink)					R2,50	
Creative Smarties (orange)					R1,00	
Sleepy Smarties (brown)					R0,50	
TOTAL						

10. Now check your calculations by comparing your answers to the Smarties in your "stock sales" bag returned by your educator.

11. This calculation can be shown as part of a "trading statement" in the format below. Complete this trading statement for your activities this lesson, if all Smarties are sold at R5 each.

Sales *(Qty sold x R5)*	
Cost of sales *(stock for sale less closing stock)* = *(total value sold - see no. 9)*	( )
Opening stock *(total value at beginning – see no. 4)*	
Purchases *(total value bought – see no. 5)*	
Stock available for sale *(Opening stock + purchases)*	
Closing stock *(total value left over – see no. 8)*	( )
Gross profit *(Sales less cost of sales)*	

12. This system of calculating cost of sales only at the end of the year is known as the periodic inventory system. Based on what you have learnt of this system, tabulate the differences you are aware of between this and the perpetual inventory system.

Periodic inventory system	Perpetual inventory system

Recording stock using the periodic inventory system

Up until now, you have recorded trading stock purchases and sales according to the **perpetual inventory system**, where the cost of goods sold is recorded at the time of sale. Technology has made this much easier with the use of barcoding and scanners to capture relevant information about stock movement.

However, this method can prove uneconomical for small businesses that sell low value goods and do not have scanning equipment. These businesses would then use the **periodic inventory system**, where the cost of sales is determined periodically, usually at the financial year-end. The stock available at the end of the year is subtracted from the opening stock and stock bought during the year to calculate that which has been sold (and would include any damaged or stolen goods as well).

Ledger accounts used

Trading stock
1. This **asset** account shows the value of goods available at the beginning of the year.
2. It is transferred to the Opening Stock account as a reversal at the beginning of the year, so that it can be included in the cost of sales calculation at the year end.
3. At the year end, closing stock will be entered in this account to show the value of stock on hand at that time.

			Trading stock			
1. Balance	b/d	XXX	2. Opening stock	GJ	XXX
3. Closing stock	GJ	XXX			

Purchases
1. All purchases of trading stock during the year are recorded in this **expense** account, which replaces Cost of Sales and is used similarly to the way the Trading Stock account is used in the perpetual inventory system.
2. If goods are taken from stock by the owner, or given as a donation, this is recorded on the credit side of the Purchases account, as these transactions reduce the value of the goods sold.
3. Returns to creditors may be recorded directly in this account as they occur. Alternatively, returns may be recorded as Creditors Allowances instead (similar to how the Debtors' allowances account is used). In this case, Creditors Allowances (returns of stock to creditors) will be closed off to the Purchases account at the end of the year.
4. At the end of the year, Purchases is closed off to the Trading Account, as it forms part of Cost of Sales.

			Purchases			
1. Bank	CPJ	XXX	2. Drawings	GJ	XXX
1. Creditors control	CJ	XXX	2. Donations	GJ	XXX
			3. Creditors' control	CAJ	XXX
			OR Creditors' allowances	GJ	
		XX	4. Trading account	GJ	XXX
					XXX

Purchases is adjusted to trading stock in the same way as stationery to consumable stores on hand.

Carriage on purchases and customs duties
1. Delivery of stock to the business and customs (import) duties are recorded in these accounts as **expenses** (compared to the perpetual system where carriage and customs are included in the trading stock account).
2. At the end of the year it will be closed off to the trading account, as it forms part of the Cost of Sales calculation.

Carriage on purchases

1. Bank	CPJ	XXX	2. Trading account	GJ	XXX
1. Creditors control	CJ	XXX			
		XXX			XXX

Customs duties

1. Bank	CPJ	XXX	2. Trading account	GJ	XXX
		XXX			XXX

Creditors allowances (if business chooses to use this account instead of recording the return directly into the purchases account)
This account is used in a similar way to that in which Debtors allowances is used, i.e. to record returns separately from the original purchases account.
1. Any return of unsatisfactory stock to creditors may be recorded here (alternatively, returns may be recorded directly in the Purchases account if the business chooses not to use the Creditors Allowances account).
2. This account is closed off to Purchases at the end of the year.

Creditors' allowances

2. Purchases	GJ	XXX	1. Creditors' control	CJ	XXX
		XXX			XXX

Journals
*   The cash receipts, debtors and debtors allowances journals **do not have a Cost of sales column**, as trading stock has already been recorded as an expense when it was bought.
*   The cash payments and creditors journals have **Purchases** and **Carriage on Purchases** columns instead of Trading stock.
*   The creditors allowances journal has a **Creditors Allowances** (or **Purchases**) column instead of Trading stock.

Internal stock control

Whichever inventory system is used (perpetual or periodic), good control must be kept over that stock. Accurate stock records should be kept, and a physical stock take should be made regularly to detect theft or damage to stock. The signature of the person responsible for the stocktaking should appear on the stock sheets to verify their accuracy. The procedure for recording stock movement (purchases and sales) should also be carefully designed to prevent fraud, and must be linked to stock records to be able to identify quantities of stock on hand. It should also be possible to identify older stock from stock records.

This is usually easier to achieve using a perpetual inventory system as the value of stock that should be on hand is known at any time, and can be compared to actual stock on hand. Since the periodic inventory system does not allow for such close control, alternative control measures such as cameras, security etc. need to be put into place.

6.3. Exercise

Show the difference between the perpetual and the periodic inventory systems by completing the table on your answer sheet.

1. The account debited when buying goods for resale.
2. The account debited when paying for delivery of goods purchased.
3. The account credited when damaged or unsatisfactory goods are returned to a creditor.
4. The account credited when goods are taken by the owner for his own use.
5. The account debited with the cost price when goods are sold.

	Perpetual inventory system	Periodic inventory system
1.		
2.		
3.		
4.		
5.		

6.4. Example

Required
Record the given transactions in the relevant journals. Totals are NOT required.

Transactions for May 20_4
1. *Paid cheque 324 to Bierman Suppliers for stock (R3 000) and stationery (R560).*
2. *The goods were delivered to the business by Gavin's Couriers, and the amount of R200 charged to our account. Invoice 6407 was received, renumbered 90.*
3. *Cash sales, R8 000.*
4. *Bought goods from Chido's Shop and received invoice A267 for R4 500.*
5. *Issued debit note 20 to Gavin's Couriers as they had forgotten to deduct our usual 10% discount as one of their regular customers.*
6. *Goods sold to N Funzani, R1 200. Invoice 421 issued.*
7. *Cheque issued to Alex Traders for R3 700 for stock bought. This included the delivery charge of R250.*
8. *Credit note 25 issued to N Funzani for goods returned, R100.*
9. *Damaged stock was returned to Chido's Shop, credit note B372 for R700 received.*
10. *Ivailo, the owner, took goods worth R500 for his own use.*
11. *Goods that had originally cost R270 were donated to the local children's home.*

Solution

Cash receipts journal of Ivailo Stores – May 20_4   CRJ9

Doc	D	Details	Analysis of receipts	Bank	Sales	Sundry accounts Amt	Details
CRR	3	Cash sales	8 000	8 000	8 000		

Note: No cost of sales

Cash payments journal of Ivailo Stores – May 20_4   CPJ9

Doc	D	Name of payee	Bank	Purchases	Carriage on purchases	Amt	Details
324	1	Bierman Suppliers	3 560	3 000		560	Stationery
325	7	Alex Traders	3 700	3 450	250		

Debtor's journal of Ivailo Stores – May 20_4   DJ9

Doc	D	Debtor	Sales
421	6	N Funzani	1 200

Note: No cost of sales

Debtors' allowances journal of Ivailo Stores – May 20_4   DAJ9

Doc	D	Debtor	Debtors' allowances
25	8	N Funzani	100

Creditors' journal of Ivailo Stores – May 20_4   CJ9

Doc	D	Creditor	Creditors control	Purchases	Carriage on purchases	Amt	Details
90	2	Gavin's Couriers	200		200		
91	4	Chido's Shop	4 500	4 500			

Creditors' allowances journal of Ivailo Stores – May 20_4   CAJ9

Doc	D	Creditor	Creditors control	Creditors' allowances	Carriage on purchases	Amt	Details
20	5	Gavin's Couriers	20		20		
21	9	Chido's Shop	700	700			

General journal of Ivailo Stores – May 20_4   GJ9

Doc	D	Details	Debit	Credit
	10	Drawings	500	
		Purchases		500
		Owner took goods for his own use.		
	11	Donations	270	
		Purchases		270
		Goods donated to local children's home.		

6.5. Exercise

Required

Record the following transactions in the journals of Samantha's Snacks for February 20_4, and total the journals. The business uses the periodic inventory system, and a mark up on cost of 100%.

Transactions for February 20_4

5. Cash sales R5 000.
7. Owner took goods for a private party. The goods were marked at R400.
8. Purchase merchandise, R2000, and stationery, R500, from Nobbs Traders on account. Received invoice 167, renumbered 72. These goods were delivered by Brian's Deliveries, received their invoice for R100.
10. Returned damaged stock to Nobbs Traders, R300, with debit note 15.
12. Purchased goods from Maponya's Munchies, R3000, and had them delivered by Brian's deliveries for R50. Paid for both by cheques 051 and 052.
    Sold goods to A. Ramsay on credit, R500. Invoice 23 issued.
15. A. Ramsay returned unsuitable goods, R100. Credit note 13 issued.
    A. Ramsay settled his account by cheque. Receipt 032 issued.
16. Donated goods with a selling price of R800 to Red Cross children's hospital.
18. Settled our account with Nobbs traders by cheque for R2 200.
    K. Saunders purchased goods on account, R700.
20. K. Saunders returned damaged goods, R70.
21. Received credit note 45 from Brian's Deliveries for overcharge on invoice of the 8th, R20.

Cash receipts journal of Samantha's Snacks – February 20_4   CRJ8

Doc	D	Details	Analysis of receipts	Bank	Sales	Debtors control	Sundry accounts	
							Amt	Details

Cash payments journal of Samantha's Snack – February 20_4   CPJ8

Doc	D	Name of payee	Bank	Creditors control	Purchases	Sundry accounts	
						Amt	Details

6. Periodic inventory system

Creditors' journal of Samantha's Snacks – February 20_4   CJ8

Doc	D	Creditor	Creditors control	Purchases	Stationery	Sundry accounts	
						Amt	Details

Creditors' allowances journal of Samantha's Snacks – February 20_4   CAJ8

Doc	D	Creditor	Creditors control	Creditors allowances	Stationery	Sundry accounts	
						Amt	Details

Debtors' journal of Samantha's Snacks – February 20_4   DJ8

Doc	D	Debtor	Sales

Debtors' allowances journal of Samantha's Snacks – February 20_4   DJ8

Doc	D	Debtor	Debtors' allowances

General journal of Samantha's Snacks - February 20_4

Doc	D	Details	Debit	Credit

6.6. Exercise

Required

Show the effect on the accounting equation of the transactions of Jackson Traders recorded by the documents below.

NOTE: The business uses the **periodic inventory system**, and has a **bank overdraft**.

e.g.

Compuquip

INVOICE

No. 100̶ 56   *1 July 20_9*

To: Jackson Traders

Computer   *R5 000*

           R5 000

1.

Holmes Suppliers

INVOICE

No. 7̶2̶ 57   1 July 20_9

To: Jackson Traders

Goods   R1 000

          R1 000

2.

02/07/02

To: Mokoena Carriers

For: Delivery of goods to Jackson Traders

Amount of this cheque: R500

0052

3.

3 July 20_9

Total sales R3 000

CRR 143

4.

Jackson Traders

INVOICE

No. 96   4 July 20_9

To: J. Arnesen

Goods   R2 000

          R2 000

5.

Jackson Traders

CREDIT NOTE

No. 23   5 July 20_9

To: J. Arnesen

Goods (damaged)   R 750

          R 750

6.

Jackson Traders

DEBIT NOTE

No. 12   6 July 20_9

To: Holmes Suppliers

Goods (damaged)   R 250

          R250

7.

JOURNAL VOUCHER

No. 32   7 July 20_9

Goods donated to Tofile Children's Home

R1 500

8.

JOURNAL VOUCHER

No. 32   7 July 20_9

Goods taken by James Jackson for his own use.

R250

9.

RECEIPT

No.47   9 July 20_9

Received from: J. Arnesen

Amount: R1 200,00

In settlement of account.

6. Periodic inventory system

	Source document	Journal	Account debit	Account credit	A	OE	L	Amount
eg	*Original invoice*	*CJ*	*Equipment*	*Creditors control*	+		+	*5 000*
1								
2								
3								
4								
5								
6								
7								
8								
9								

6.7. Formative assessment

(50 marks, 30 minutes)

Transactions for March 20_4

4. Purchased merchandise, R2 000, from Shamir Suppliers. Invoice 452 received, renumbered 130.
    Paid DHL R100 for delivery of these goods by cheque 154.
6. Sold goods to X. Tofile, R2 500. Invoice 205 issued. The business uses a mark up of 150% on cost.
10. Sent debit note 57 to Shamir Suppliers for 10% trade discount not received on the 4th.
13. Bought goods for cash from Arnesen Wholesalers, R3000.
    Goods were donated to Castleman Children's' Home (cost price R700).
15. Sold goods for cash, R2500.
16. X. Tofile returned damaged goods, R500. Issued credit note 23.
20. Bought goods from Arnesen Traders, R1 500. Arnesen traders paid the delivery cost of R200 and added this amount to the invoice.
25. The owner took goods marked at R450 for her own use.

Required

1. Show the effect of each of the transactions on the accounting equation. (33)

NOTE: The business uses the periodic inventory system.

	Source document	Journal	Account debit	Account credit	A	OE	L	Amount
4								
4								
6								
10								
13								
13								
15								
16								
20								
25								

2. Record the above transactions in the relevant journals. Create column headings for the accounts that you require. No totals are necessary. (17)

Cash receipts journal of Taitz Traders – March 20_4   CRJ5

Doc	D	Details	Analysis of receipts	Bank	

Cash payments journal of Taitz Traders – March 20_4   CPJ5

Doc	D	Name of payee	Bank		

Debtors' journal of Taitz Traders – March 20_4   DJ5

Doc	D	Debtor		

Debtors' allowances journal of Taitz Traders – March 20_4   DAJ5

Doc	D	Debtor		

Creditors' journal of Taitz Traders – March 20_4   CJ5

Doc	D	Creditor	Creditors control	

Creditors' allowances journal of Taitz Traders – March 20_4   CAJ5

Doc	D	Creditor	Creditors control	

General journal of Taitz Traders – March 20_4   GJ5

Doc	D	Details	Debit	Credit

The trading account

As for the perpetual system, the Trading Account is used to calculate gross profit. Sales and Cost of Sales are closed off to this account. Since under the periodic system we don't usually have a Cost of Sales account, all the accounts that make up this cost are closed off here instead.

Trading account F1

Opening stock	**XXX**	Sales		XXX
Purchases	**XXX**	**Closing stock**		**XXX**
Carriage on purchases	**XXX**			
Profit and loss	XXX			
	XXX			XXX

Since closing stock is subtracted from the cost of sales calculation, it is shown here on the credit side.
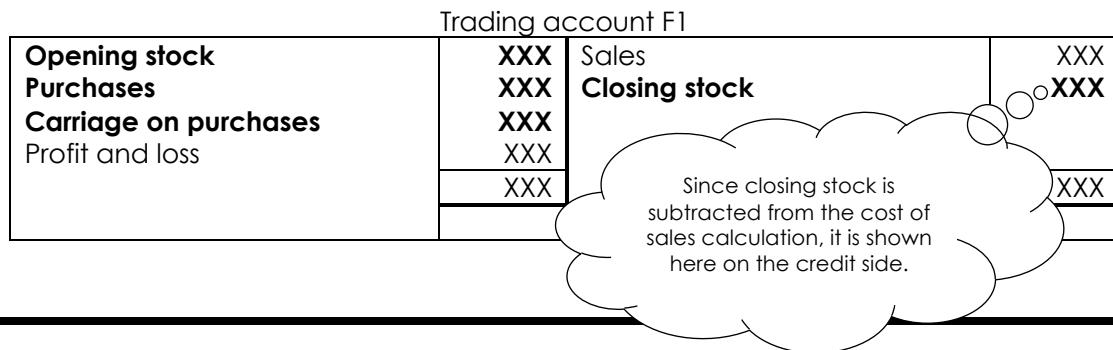
6.8. Example

Required

Complete the given general ledger accounts with given opening balances from the following information taken from the journals of Elena's Super Store for February 20_4. The financial year end is 28 February.

Balances on 1 February 20_4

Opening stock R3 400
Purchases R12 500
Carriage on purchases R800
Creditors allowances R1 200

Transactions for February 20_4

1. *A donation of R50 worth of goods was made on the 14th.*
2. *The owner took goods for his own use on the 23rd, cost price R500.*
3. *Total cash purchases of stock R2 400*
4. *Total credit purchases of goods R3 200*
5. *Total carriage paid on goods delivered R340*
6. *Total goods returned to creditors R300*
7. *A physical stock take revealed stock worth R2 300 on hand on 28th.*
8. *Closing transfers (note: total sales for the year amounted to R36 580).*

Solution

Dr   General ledger of Elena's Super Store   Cr

Trading stock A1

20_4 Feb	28	*Closing stock (7)*	GJ	2 300				

Opening stock E1

20_4 Feb	1	*Balance*	b/d	3 400	20_4 Feb	28	*Trading account(8)*	GJ	3 400

6. Periodic inventory system

Purchases E2

20_4 Feb	1	Balance	b/d	12 500	20_4 Feb	14	Donations (1)	GJ3	50
	28	Bank (3)	CPJ8	2 400		23	Drawings (2)	GJ3	500
		Creditors control(4)	CJ3	3 200		28	Creditors' allowances(8)	GJ	1 500
							Trading account (8)	GJ	16 050
				18 100					18 100

Carriage on purchases E3

20_4 Feb	1	Balance	b/d	800	20_4 Feb	28	Trading account(8)	GJ	1 140
	28	Bank (5)	CPJ	340					
				1 140					1 140

Creditors' allowances E4

20_4 Feb	28	Purchases (8)	GJ	1 500	20_4 Feb	1	Balance	b/d	1 200
						28	Creditors control(6)	CAJ3	300
				1 500					1 500

Closing stock E5

20_4 Feb	28	Trading account(8)	GJ	2 300	20_4 Feb	28	Trading stock(7)	GJ	2 300

Trading account F1

20_4 Feb	28	Opening stock(8)	GJ	3 400	20_4 Feb	28	Sales	GJ	36 580
		Purchases (8)	GJ	16 050			Closing stock(8)	GJ	2 300
		Carriage on purchase(8)	GJ	1 140					
		Profit and loss	GJ	18 290					
				38 880					38 880

6.9. Exercise

Required

Draw up the given general ledger accounts for June 20_4 from the information below.

NOTE: The financial year end is 30 June each year. The business uses a mark up of 100% on cost.

Information

1. Balances on 1 June 20_4: Opening stock R5 000, Purchases R80 000, Carriage on purchases R12 500, Creditors allowances R7 000.

2. Stock purchased for cash totalled R3 000.

3. Merchandise purchased on credit totalled R4 000.

4. Stationery purchased on credit, R300.

5. Goods purchased from petty cash R500.

6. Merchandise returned to creditors during the month, R1 000.

7. Credit notes received for stationery returned, R800.

8. Cash paid for delivery of goods to the shop, R1 500.

9. Donations of stock, R300.

10. The owner took goods marked at R200 for his own use.

11. A physical stock take on 30 June 20_4 revealed stock costing R4 500 on hand.

6. Periodic inventory system

Trading stock A1

Opening stock E1

Purchases E2

Carriage on purchases E3

Creditors' allowances E4

Closing stock E5

Trading account F1

6.10. Example

Required
Calculate the gross profit for the year from the given information.

Information
The following balances were taken from the post-adjustment trial balance on 31 December 20_4.
1. *Sales R100 000*
2. *Stock at 1 January 20_4 R5 000*
3. *Purchases R30 000*
4. *Creditors allowances R3 000*
5. *Carriage on purchases R10 000*
6. *Customs duties R12 000*
7. *Stock at 31 December 20_4 R7 000*

Solution

Sales (1)	*100 000*
Cost of sales	*(47 000)*
Opening stock / stock at 1 January 20_4 (2)	*5 000*
Purchases (30 000 (3) – 3 000 (4))	*27 000*
Carriage on purchases (5)	*10 000*
Customs duties (6)	*12 000*
Closing stock / stock at 31 December 20_4 (7)	*(7 000)*
Gross profit	*53 000*

6.11. Exercise

Required
Calculate the gross profit from the following information.

Trial balance totals on 28 February 20_4:
Sales R105 000, Debtors' allowances R5 000, Opening stock R24 000, Purchases R48 000, Creditors' allowances R3 000, Carriage on purchases R2 000.
Physical stock take on 28 February 20_4: R20 000 stock on hand

6.12. Exercise

Calculate the missing figure in the following calculation. Show your workings.

Trading stock 1 March 20_4	?
Purchases	20 000
Trading stock 28 February 20_5	13 000
Cost of sales	30 000

6.13. Formative assessment

(15 marks, 8 minutes) ✎

Information

All of the following accounts would be closed off to the Trading Account on 30 April 20_4, the end of the financial year, except for Debtors Allowances and Creditors Allowances.

Sales R110 000, Purchases R50 000, Debtors allowances R5 000, Creditors allowances R8 000, Carriage on purchases R2 000, Opening stock R15 000, Closing stock R12 000

Required

1. To which account would Debtors Allowances be closed off? (1)

2. To which account would Creditors Allowances be closed off? (1)

3. Draw up the Trading Account as it would appear after Debtors and Creditors Allowances have been closed off to the correct accounts. (11)

Trading account

4. Which amount above represents the trading stock on hand at the end of the year? (1)

5. Which amount in the trading account represents the gross profit made by this business? (1)

6.14. Exercise

Balances in the pre-adjustment trial balance on 28 February 20_5

Sales   R115 000, Debtors allowances R4 200, Opening stock R32 000, Purchases R45 000, Carriage on purchases R5 000, Carriage on sales R3 000, Customs duties R2 700, Creditors allowances R6 300.

Adjustments still to be taken into account

- An invoice was received from Mancotywa Suppliers for stock (R1 200) and stationery (R500), after the totals in the creditors journal had been posted to the ledgers.
- The bookkeeper had forgotten to post the total of the Purchases column in the cash payments journal, R3 700.
- R150 was paid to Speedy Santoriello, who couriered the above goods to the business, and R200 for customs duties on these goods was paid at the same time.
- Goods with a selling price of R700 were taken by Lauren Detert, the owner, for her own use (the business marks goods up by 100% on cost).
- Goods that had cost the business R900 were donated to Rotary.
- A debit note for R470 was sent together with faulty merchandise, to Palframan Traders.
- Cash sales for the day amounted to R6 200.
- A credit note was sent to K. Swart, who had returned goods with a selling price of R850.
- The physical stock take revealed stock on hand valued at R18 000.

Required

1. Draw up the Purchases account in the general ledger, closed off on 28 February 20_5.

Purchases E10

2. Calculate the gross profit for the year ended 28 February 20_5.

Sales	
Cost of sales	
Gross profit	

3. Calculate **and comment** on the mark up percentage achieved by the business, if goods are marked up by 100% on cost. Suggest an alternative inventory system that would solve this problem, and **explain** your choice in detail.

Mark up achieved:

Alternative inventory system:

6.15. Exercise

Some time ago Lauren Detert, the accountant of Banha Stores, tried to appropriate some business funds to finance her Christmas holiday. The owner, Tristan Banha, did not have the heart to fire her. However, he has employed a second accountant (Michael Earp) ever since. Although this obviously costs him lots of money in the form of their fees, he is happy to pay them both to duplicate the accounting records in order to be able to identify future irregularities.

At the end of the financial year on 30 June 20_5, he was rather disconcerted to discover that they have each used a different method of stock control, and he is unsure whether Lauren has been up to her tricks of late or not as a result. Tristan has therefore asked you to help him compare the records drawn up by Lauren and Michael.

The following balances appeared in the books drawn up on 30 June 20_5:

Lauren Detert's records	**Michael Earp's records**
Trading stock (1 July 20_4) R10 000	Trading stock (30 June 20_5) 25 000
Purchases R300 000	Cost of sales R405 000
Carriage on purchases R50 000	
Carriage on sales R30 000	
Customs duties R70 000	

Additional information

A physical stock take on 30 June 20_5 revealed stock worth R14 000 on hand.

Questions

1.   What is the cost of sales as determined by
1.1.   Lauren's records?

1.2.   Michael's records?

2.   Do you think Lauren has been up to her tricks? Explain, showing your calculations.

3.   When you approach Tristan with your concerns about the stock loss, he admits that he is partly responsible. Over the Christmas period he donated stock with a selling price of R10 000 to a new local charity. However, since he had heard that donations to any organisation without a registered charity number are not tax deductible, he decided not to mention this to either of his accountants.

3.1.   Which stock system hides this type of transaction more easily? Explain.

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3.2.

3.2.1. Show how this transaction should have been recorded by **Lauren** (NOTE: The business uses a mark up on cost of 150%).

General journal of Banha Stores – June 20_5

Day	Details	Debit	Credit

3.2.2. Show how this transaction should have been recorded by **Michael**.

General journal of Banha Stores – June 20_5

Day	Details	Debit	Credit

3.2.3. Give an example of another similar transaction that could be hidden in this way to avoid paying tax.

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3.2.4. Discuss the ethics of hiding this type of transaction to avoid paying tax.

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6.16. Formative assessment

(80 marks, 40 minutes) 🖎

Van Luijk Traders buys fresh bakery items from local bakers and delivers them directly to small supermarkets in the area, as well as directly to the public from a small shop, applying a mark-up of 50% on cost. Because of the nature of the products, the owner, Roeland van Luijk, decided to use the periodic inventory system of recording stock movement in the business. Although he has negotiated credit terms with some of his suppliers, he sells his goods on a cash only basis. He has read a number of articles in the press lately regarding the prevalence of fraud within businesses, and has asked you to scrutinise his creditors and stock to identify any irregularities within his business.

Information:

1.   The following balances were extracted from the General Ledger on 1 March 20_5:
        Creditors' control R17 000
        Sales R530 000
        Purchases R390 000
        Customers' allowances R20 000
        Creditors' allowances R11 000
        Opening stock R1 200
        Carriage on purchases R40 000
        Carriage on sales R35 000

2.   The following is a summary of some of the transactions that took place during March 20_5, according to the journals:
2.1.   Invoices totalling R25 000 were received from the local bakers for confectionery items bought.
2.2.   Cheques totalling R10 000 were issued to local bakers who do not offer credit terms, for bread and cakes.
2.3.   Cheques to the value of R19 000 were issued to bakers in settlement of our accounts totalling R19 500.
2.4.   Debit notes were issued for stale cakes worth R3 000.
2.5.   Biscuits and cakes marked at R1 500 were donated to the local children's home for their Easter party.
2.6.   Vehicle expenses for the month were allocated as follows:
        Deliveries from bakers to the shop R3 500
        Deliveries from the shop to supermarkets R3 000
2.7.   Cash invoices issued amounted to R42 000.
2.8.   Cash refunds were given to customers for stale confectionery amounted to R1 500.

3.   The following balances appeared in the Creditors Ledger on 31 March 20_5:
        Torlage's Tasties R500 (dr)
        Bongani's Biscuits R5 500
        Mabusela Magic R4 000
        Matt's Muffins R6 000

4.   The following must still be taken into account:
4.1.   A physical stock take after closing the shop on 31 March 20_5 revealed stock on hand to the value of R2 500.
4.2.   A cash refund was received from Torlage's Tasties to settle the debit balance of their account. No entry has yet been made.
4.3.   The account from Bongani's Biscuits was lost in the post, and as a result the account was not settled in time. Their March statement includes an interest charge of R55. This was entered directly into their account in the Creditors' Ledger, but no journal entry has been made.
4.4.   Mabusela Magic notified van Luijk Traders that a cheque for R4 000 issued in settlement of their account of R4 100 had not been signed by the accountant, and has therefore been returned to them by the bank. This dishonoured cheque has been correctly recorded, but the discount was not taken into account.

Learn the EZ way!

Required

1. Draw up the following general ledger accounts for March 20_5, balanced or closed off on 31 March, the financial year end. Show all workings in brackets to receive part marks.

1.1.   Creditors control   (14)

1.2.   Purchases   (14)

1.3.   Trading account   (19)

2.   Reconcile the Creditors Control account in the General Ledger with the Creditors Ledger:

2.1.   Complete the correct list of creditors on 31 March 20_5   (7)

Torlage's Tasties	
Bongani's Biscuits	
Mabusela Magic	
Matt's Muffins	

2.2.   Is the result what you would expect? Explain.   (4)

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3.1.   What kind of fraud relating specifically to creditors could take place in this business? Give ONE example.   (2)

(Please turn over)

3.2. How could you go about identifying irregularities relating to creditors of the business? Suggest ONE method. (2)

3.3. What controls could you implement to prevent creditors' fraud? Suggest at least TWO internal controls that Roeland could use. (4)

3.4. Roeland marks his stock up by 50% on cost. Calculate the actual mark-up achieved by the business this year. (4)

3.5. Suggest at least TWO possible causes of the difference between the intended and actual mark up percentage. (4)

3.6. Explain why the periodic inventory system makes stock control more difficult than when using the perpetual inventory system. (2)

3.7.   Suggest what Roeland could do to control his stock more carefully, if he wishes to continue recording stock according to the periodic inventory system.   (4)

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6.17. Check yourself   ✔

Tick the block that represents how you feel when faced with the following questions. Can you …	☺	☻	☹
Differentiate between the periodic and perpetual inventory systems.			
Calculate cost of sales, gross profit and profit mark-up using the periodic inventory system.			
Record the transactions of a business using the periodic inventory system in the subsidiary journals and the general ledger.			

If you have ticked mostly happy faces, great! Move on to the summative assessment. If you are not sure, or have ticked mostly sad faces, it might be wise to ask your teacher for some extra help before moving on.

6.18. Summative assessment

(40 marks, 20 minutes)

Since being retrenched by his employer a month ago, Sydney sells beaded key rings on the side of the road. He buys them from his friends who make them in Pietersburg for R7 each, and sells them to passing motorists for R10 each. He sometimes also sells his key rings at a discount to friends who also wish to sell them at other robots in the area. He has agreed that his friends need only pay him when they sell the key rings.

He has no previous business experience, and is worried that he may not have done his costing and pricing correctly, as although his key rings are selling well, he is experiencing cash flow problems. The last time he travelled to Pietersburg to buy more key rings, he was not able to pay cash for all of them, and had to negotiate with his friends in order to be able to pay for some of them on his next trip.

Information

He has not kept formal accounting records, but he has kept track of his transactions in a little notebook. As his friends pay him, he crosses out the amount owed. The notebook reveals the following information for June 20_2:

Cash paid June 20_2			Cash received June 20_2	
Key rings bought			Key rings sold & friends paid	
10 June		R1 050	1 - 5 June	R300
25 June		R651	6 - 12 June	R500
		R1 701	13 - 19 June	R400
			20 - 26 June	R700
Taxi fares to fetch key rings			27 - 30 June	R400
1 June	200			R2 300
10 June	200		Friends who will pay later	
25 June	200		Joe R80 + R64 + R104	
	600		Sam R200	
Key rings bought on credit				
25 June	R250			

In addition, he tells you that he started the business with 42 key rings that he had bought with some of his retrenchment money. He now has 49 key rings left over.

Required

Since you are a fan of his product and have some accounting knowledge, you offered to help him.

1. Draw up a Trading Account to determine his gross profit. (20)

Trading account

2. Calculate the actual mark-up achieved on cost. (4)

3. Calculate how long it usually takes him to sell the key rings. (6)

4. Comment on Sydney's pricing strategy, and make any relevant suggestions. (6)

5. What is the cause of his cash flow problems, and how can he solve this (other than changing his pricing)? (4)

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