2.	ANSWERS

Answer 1

X	7 X 100	700
Y	8 X 200	1.600
Z	15 X 300	4.500
Value of closing inventory		€6.800

Answer 2

(a) **AVCO** **FIFO**

Purchases(receipts)		**€**		**€**
1 Jan	5x4	20	5x4	20
3 Jan	5x5	25	5x5	25
4 Jan	5x5,50	27,50	5x5,50	27,50
Average/unit *(72.5:15=4.83)	**15 x 4,83***	**72,50**		
Sales (issues)		**€**		**€**
5 Jan	(7 x 4,83)	(33,81)	(5) x 4	(20)
			(2) x 5	(10)
Closing inventory	**8 units** x **4,83**	**<u>38,69</u>**	**8 units**	**<u>42,50</u>**

NOTE: periodic system was used since there was only one sales' transaction which took place at end of the year

Check:	8x4,83	38,64	(Difference is due to rounding)
Shortcut:			
	Closing inventory (5+5+5-7)		**8 units**

5 x 5,50	27,50
3 x 5,0	15,0
	42,50

(b) Trading section of the Income Statement for the month of April

	AVCO	**FIFO**
Sales (7 x €10)	70,00	70,00
Less: Cost of Sales		
Purchases	72,50	72,50
Closing Inventory	(38,69)	(42,50)
COST OF SALES	33,81	30,00
Gross Profit	**36,19**	**40,00**

Answer 3

Trading section of the Income Statement for the year ended 31 December 2016

	€	€	Units
Sales		215.000	**70**
Less: Cost of sales			
Opening inventory	9.500		30
Purchases	150.000		65
Less: Closing inventory	(7.500)	(152.000)	(25)
Gross profit		**63.000**	**70**

Answer 4

	Cost €000	NRV €000	Lower of Cost or NRV
Line: Alfa	500	375	375
Beta	220	125	125*
Value of Closing inventory			**500**

* NRV= Expected selling price - any further costs required to put the items to a saleable condition

NRV= 220.000 - 95.000=125.000

Answer 5

	Units	€/unit	€ Total
Basic	200	6	1.200
Super	250	8	2.000
Delux	150	10	1.500
Value of closing inventory			**4.700**

Working :

	Cost € per unit	NRV € per unit	Lower of Cost or NRV
Products: Basic	6	8 (9-1)	6
Super	9	8 (12-4)	8
Deluxe	18	10 (15-5)	10

Answer 6

(i) FIFO (First In First Out) **Inventory A/c**

Date	**Purchases (receipts)**			**Cost of Sales (issues)**			**Balance**		
	Units	Price per unit	Total	Units	Price per unit	Total	Units	Price per unit	Total
Jan 1							200	5	1.000
Feb 4				120	5	600	80	5	400
Mar 8				10	5	50	70	5	350
May 5	100	5,1	510				70 100	5 5,1	350 510
Sep 9	50	5,2	260				70 100 50	5 5,1 5,2	350 510 260
				70 40	5 5,5	350 220	60 50	5,1 5,2	306 260
				10	5,1	51	50 50	5,1 5,2	255 260
						1.271*	**100**		**515****

***Cost of sales €1.271**
****Value of closing inventory €515**

(ii) AVCO **Inventory A/c**

Date	Details	Units	Price per unit	Balance
Jan 1	Opening inventory	200	5	1.000
Feb 4	Cost of Sales	(120)	5	(600)
		80	5	400
Mar 8	Cost of Sales	(10)	5	(50)
		70	5	350
May 5	Purchases	100	5,1	510
		170	**5,06***	860
Sep 9	Purchases	50	5,2	260
		220	**5,09****	1.120
Nov 16	Cost of Sales	(110)	5,09	(560)
		110	5,09	560
Dec 12	Cost of Sales	(10)	5,09	(51)
		100	5,09	**509*****

*860÷170=5, 06

**1.120÷220=5, 09

*****Value of closing inventory €509**
Cost of Sales=600+50+560+51 =1.261

Answer 7

- **(a)** FIFO (Periodic): 1 unit x €220=€220
- **(b)** LIFO (Periodic): 1 unit x €200=€200

Working:

Units of closing inventory:

Opening	4
Purchases (5+12)	17
	21
Sales (3+4+10+3)	20
	1

Answer 8

(a) FIFO (First In First Out) **Inventory A/c**

Date	**Purchases (receipts)**			**Cost of Sales (issues)**			**Balance**		
	Units	Price per unit	Total	Units	Price per unit	Total	Units	Price per unit	Total
Mar 2	5	4	20				5	4	20
7				4	4	16	1	4	4
12	17	5	85				1	4	4
							17	5	85
21				1	4	4			
				14	5	70	3	5	15
24	10	6	60				3	5	15
							10	6	60
30				3	5	15			
				4	6	24	6	6	36
						129*			**36****

***Cost of sales €129**
****Value of closing inventory €36**

(b) LIFO (Last in First Out) **Inventory A/c**

Date	**Purchases (receipts)**			**Cost of Sales (issues)**			**Balance**		
	Units	Price /unit	Total	Units	Price / unit	Total	Units	Price / unit	Total
Mar 2	5	4	20				5	4	20
7				4	4	16			
							1	4	4
12	17	5	85				1	4	4
							17	5	85
21				15	5	75	1	4	4
							2	5	10
24	10	6	60				1	4	4
							2	5	10
							10	6	60
30				7	6	42	1	4	4
							2	5	10
							3	6	18
						133*			**32****

***Cost of sales €133**
****Value of closing inventory €32**

(c) AVCO

Inventory A/c

Date	Details	Units	Price per unit	Balance
Mar 2	Purchases	5	4,0	20,0
Mar 7	Cost of Sales	(4)	4,0	(16)
		1	4,0	4,0
Mar 12	Purchases	17	5,0	85,0
		18	**4,94***	89,0
Mar 21	Cost of Sales	(15)	4,94	(74,1)
		3	4,94	14,82
Mar 24	Purchases	10	6,0	60,0
		13	**5,76****	74,82
Mar 30	Cost of Sales	(7)	5,76	(40,32)
		6	5,76	**34.56*****

* 89÷18=4,94
** 74,82÷13=5,76
*****Value of closing inventory €34,56**
Cost of sales €130,42 (16 + 74,1 + 40,32)

Answer 9

(a)

(i) FIFO (First In First Out) Inventory A/c

Date	Purchases(receipts)			Cost of Sales (issues)			Balance		
	Units	Price /unit	Total	Units	Price / unit	Total	Units	Price / unit	Total
Oct 1							1	100	100
4	6	100	600				7	100	700
7				4	100	400	3	100	300
12	5	110	550				3 5	100 110	300 550
23				3 3	100 110	300 330	2	110	220
24	7	120					2 7	110 120	220 840
				2 4	110 120	220 480	3	120	360
						1.730*			**360****

***Cost of sales €1.730**
****Value of closing inventory €360**

(ii) LIFO (Last in First Out) Inventory A/c

Date	Purchases (receipts)			Cost of Sales (issues)			Balance		
	Units	Price/unit	Total	Units	Price/ unit	Total	Units	Price /unit	Total
Oct 1							1	100	100
4	6	100	600				1 6	100 100	100 600
7				4	100	400	3	100	300
12	5	110	550				3 5	100 110	300 550
23				5 1	110 100	550 100	2	100	200
24	7	120	480				2 7	100 120	200 840
30				6	120	720	**2** **1**	100 120	**200** **120**
						1.770*			**320****

***Cost of sales €1.770**
****Value of closing inventory €320**

(iii) AVCO Inventory A/c

Date	Details	Units	Price per unit	Balance
Oct 1	Opening inventory	1	100	100
Oct 4	Purchases	6	100	600
		7	100	700
Oct 7	Cost of Sales	(4)	100	(400)
		3	100	300
Oct 12	Purchases	5	110	550
		8	**106,25***	850
Oct 23	Cost of Sales	(6)	106,25	(637,5)
		2	106,25	212,5
Oct 24	Purchases	7	120	840
		9	**116,94****	1.052,46
Oct 30	Cost of Sales	(6)	116,94	(701,64)
		3	116,94	**350,82**

*850÷8=106, 25

**1052, 46÷9=116, 94

(Difference is due to rounding)

*****Value of closing inventory €350, 82**
Cost of sales €1.739, 14 (400 + 637, 5 + 701, 64)

(b) **Income Statement for the month of October Year 6**

	FIFO	**LIFO**	**AVCO**
Sales	3.200*	3.200	3.200
Less: Cost of Sales			
Opening Inventory	100	100	100
Purchases	1.990	1.990	1.990
Closing Inventory	(360)	320	(351)
COST OF SALES	1.730	1.770	1739
Gross Profit	**1.470**	**1.430**	**1.461**

*sales (4+6+6) x 200

**purchases (6x100) + (5x110) + (7x120) =1.990

Answer 10

(a) (i) FIFO 3 x 18 = **€54**

(ii) LIFO (2 x 16) + (1x17) = **€49**

(b)

Income Statement for the month ended 31 August Year 7

	FIFO		LIFO	
	€	€	€	€
Sales		400		400
Less: Cost of sales				
Purchases	226		226	
Inventory as at 31 August	(54)	172	(49)	177
Gross Profit		**228**		**223**

Workings

1. Calculation of units of closing inventory

Units purchased	(2+4+7) =13	
Units sold	(1+3+6)	(10)
Units of clos. Inventory		3

2. Calculation of purchases:

(2x€16) + (4x€17) + (7x€18) = €226

Answer 11

FIFO (First In First Out)

Inventory A/c

Date	Purchases			Cost of Sales			Balance		
	Units	Price/ unit	Total	Units	Price/ unit	Total	Units	Price/ unit	Total
May 1							120	8	960
May 5	200	10	2.000				120	8	960
							200	10	2.000
May 6				120	8	960			
				100	10	1.000	100	10	1.000
						1.960*			**1.000****

*Cost of sales €1.960
**Closing inventory €1.000

LIFO (Last in First Out)

Inventory A/c

Date	Purchases			Cost of Sales			Balance		
	Units	Price/ unit	Total	Units	Price/ unit	Total	Units	Price/ unit	Total
May 1							120	8	960
May 5	200	10	2.000				120	8	960
							200	10	2.000
May 6				200	10	2.000			
				20	8	160	100	8	800
						2.160*			**800****

*Cost of sales €2.160
** Closing inventory €800

AVCO

Inventory A/c

Date	Details	Units	Price per unit	Balance
May 1	Opening Inventory	120	8	960
May 5	Purchases	200	10	2.000
		320	**9,25***	2.960
May 6	Cost of Sales	(220)	9,25	**(2.035)****
	Closing Inventory	100	9,25	**925*****

* 2960÷320=9, 25

** Cost of sales €2.035 (220x9.25)

***Closing Inventory€925 (100x9.25)

Answer 12

a. Perpetual Inventory System

FIFO (First In First Out)

Inventory A/c

Date	Purchases			Cost of Sales			Balance		
	Units	Price per unit	Total	Units	Price per unit	Total	Units	Price per unit	Total
Jan 1							100	5	500
Feb 22	80	7	560				100	5	500
							80	7	560
Mar 27				60	5	300	40	5	200
							80	7	560
Aug 10	55	8	440				40	5	200
							80	7	560
							55	8	440
Oct 14	30	9	270				40	5	200
							80	7	560
							55	8	440
							30	9	270
Nov 15				40	5	200	50	7	350
				30	7	210	55	8	440
							30	9	270
						710*	135		**1.060****

* Cost of sales €710

**Closing inventory €1.060

LIFO (Last in First Out)

Inventory A/c

Date	**Purchases**			**Cost of Sales**			**Balance**		
	Units	Price per unit	Total	Units	Price per unit	Total	Units	Price per unit	Total
Jan 1							100	5	500
Feb 22	80	7	560				100	5	500
							80	7	560
Mar 27				60	7	420	100	5	500
							20	7	140
Aug 10	55	8	440				100	5	500
							20	7	140
							55	8	440
Oct 14	30	9	270				100	5	500
							20	7	140
							55	8	440
							30	9	270
Nov 15				30	9	270	100	5	500
				40	8	320	20	7	140
							15	8	120
						1.010*			**760****

*Cost of sales €1.010

**Closing inventory €760

AVCO

Inventory A/c

Date	**Details**	**Units**	**Price per unit**	**Balance**
Jan 1	Opening Inventory	100	5	500
Feb 22	Purchases	80	7	560
		180	**5,89**	1.060
Mar 27	Cost of Sales	(60)	5,89	**(353)***
		120	5,89	707
Aug 10	Purchases	55	8	440
		175	**6,55**	1.147
Oct 14	Purchases	30	9	270
		205	**6,91**	1.417
Nov 15	Cost of Sales	(70)	6,91	**(484)***
	Closing Inventory	135	6,91	**933**

*Cost of sales €837 (353+484)

**Closing inventory € €933

b. **Periodic Inventory System**

Jan 1	**Opening Inventory**	100 units x €5	€500
Feb 22	Purchases	80 units x €7	€560
Aug 10	Purchases	55 units x €8	€440
Oct 14	Purchases	30 units x €9	€270
	Available for sale	**265 units**	**€1.770**
	Sales (60 + 70)	130 units	
Nov 15	**Closing Inventory**	**135 units**	

<u>FIFO (First In First out)</u>

Calculation of closing inventory

30 units x €9 (Purchased on 14/10)	270
55 units x €8 (Purchased on 10/8)	440
<u>50 units</u> x €7 (Purchased on 22/2)	<u>350</u>
135 units	**<u>1.060</u>**

<u>LIFO (Last in First out)</u>

Calculation of closing inventory

100 units x €5 (purchased on 1/1)	500
<u>35 units</u> x €7 (purchased on 22/2)	<u>245</u>
440 units	**<u>745</u>**

<u>AVCO</u>

$$AVCO = \frac{Total\ Inventory\ Cost}{Total\ Units}$$

Total Inventory Cost / Total Units = €1.770 / 265 units = €6, 68 per unit

Calculation of closing inventory

Closing Inventory: 135 units x €6, 68 **<u>€902</u>**

c. Perpetual Inventory System

Income Statement for the year ended 31 December 2016

	FIFO	LIFO	AVCO
Sales (780 + 1.050)	1.830	1.830	1.830
Less: Cost of Sales			
Opening Inventory	500	500	500
Purchases	1.270	1.270	1.270
Closing Inventory	(1.060)	(760)	(933)
COST OF SALES	710	1.010	837
Gross Profit	**1.120**	**820**	**993**

Periodic Inventory System

Income Statement for the year ended 31 December 2016

	FIFO	LIFO	AVCO
Sales (780 + 1.050)	1.830	1.830	1.830
Less: Cost of Sales			
Opening Inventory	500	500	500
Purchases	1.270	1.270	1.270
Closing Inventory	(1.060)	(745)	(902)
COST OF SALES	710	1.025	868
Gross Profit	**1.120**	**805**	**962**