QUESTION 1:

a) It is important to note that Famba will only receive the commission on the ticket price of R2 000.
(2000 x 12.5% commission = R250)

Break-even (units) = $\frac{\text{Fixed cost}}{\text{Marginal income (MI)}}$

= $\frac{\text{R20 000}}{\text{R200}^{1}}$

= 100 tickets

MI^{1} = Sales - Total variable costs
= R250 (*R2 000 X 12,5%*) - R32 - R18
= R 200

b)

Number of tickets = $\frac{\text{Fixed cost + Planned profit}}{\text{Marginal income (MI)}}$

= $\frac{\text{R20 000 + R12 000}}{\text{R200}}$

= 160 tickets

c) The Marginal income statement will look as follows:

Income statement	**R**
Sales (*R250*** x 120*)	30 000
Less: Variable cost(*R32 x 120*)	(3 840)
Delivery cost (*R12,50 x 120)*	(1 500)
Marginal income	24 660
Less: Fixed costs	(20 000)
Profit	4 660

*** 2000 x 12.5% commission = R250

d)

Margin of safety = Sales qty.- Break-even qty.

= 110 – 100

= 10 tickets

OR = Sales value – Break-even value

= R27 500 (R250 x 110) – R25 000 (R250 X 100)

= R2 500

Part B

Margin of safety = Sales – Break-even value (BEV)
R38 400 = R192 000 – BEV
BEV = R192 000 – R38 400
= R153 600

Break-even value (BEV) = $\frac{\text{Fixed cost (FC)}}{\text{Marginal income ratio}}$

$\frac{\text{R153 600}}{1} = \frac{\text{FC}}{33{,}333\%^{1}}$

FC = R51 199,488 SAY: R51 200

[1]Marginal income = R192 000 - R128 000 = R64 000
Marginal income ratio = R64 000/ R192 000 = 33,333%

QUESTION 2:

(a)

Normal loss percentage
On opening stock:

Input	12 000
Less: Output	(10 800)
Normal loss in units	1 200
Normal loss in percentage (1 200/12 000)	10%

OR
For the full period:

Base	20 000
Normal loss in units	2 000
Normal loss in percentage (2 000/20 000)	10%

(b) (i)

Production cost statement for February 2010

	Total	Material	Conversion costs
	R	R	R
Work-in -process 1 Apr. 2011	484 522	138 950	345 572
Current costs	334 568	94 568	240 000
	819 090		
Current costs / Equivalent units		94 568	240 000
		7 200	13 670
Cost per equivalent unit	R30,69	R13,13	R17,56

b) (ii) The cost allocation statement:

Cost allocation statement

Work-in-process: 1 April 2011		484 522
Material	Given	138 950
Conversion cost	*See calc below	345 572[a]
Current production		221 479
Material	(3 200 x R13,13)	42 016
Conversion cost	*See calc below	179 463[c]
		706 001
Abnormal spoilage		26 300
Material	(1 000 x R13,13)	13 130
Conversion cost	(750 x R17,56)	13 170
Work-in-process: 30 April 2011		86 802
Material	(3 000 x R13,13)	39 390
Conversion cost	(2 700 x R17,56)	47 412
		819 103
Rounding difference		(13)
		819 090

*Calculations:

[a] = given

[c] = 10 220 x R17,56 = R345 572

(c) Quantity statement

	Details	Output	Equivalent units			
			Material		Conversion	
			Units	%	Units	%
12 000	Work -in-process 1 Apr. 2011					
8 000	Put into production					
	Completed and transferred	14 000	14 000		14 000	
	Spoilage:					
	- Normal Loss	800①	-	-	-	-
	- Abnormal Loss	2 200	2 200	100	-	-
	Work-in-process 30 Apr. 2011	3 000	3 000	100	2 700	90
20 000		20 000	19 200		16 700	

① (20 000 – 12 000) x 10% = 800

QUESTION 3 **[20]**

(c) Production, stock and sales for the months October, November and December 2010 (in units)

	October	November	December
Opening stock	2,120	**3,250**	**5,590**
Production	54,000	**49,923 (ii)**	**57,411 (iii)**
Closing stock	**(3,250) (i)**	(5,590)	**(8,281) (v)**
Sales	52,870	**47,583**	**54,720 (iv)**

(see breakdown of marks with calculations below)

(i) Closing stock October 2010
2,120+54,000-52,780=3,250

(ii) Production November 2010

Sales (52,870 * 90%) = 47,583
47,583+5,590-3,250 = 49,923

(iii) Production December 2010
49,923 * 1.15 = 57,411

(iv) Sales December 2010
47,583 * 1.15 = 54,720

(v) Closing stock December 2010
5,590 + 57,411 - 54,720 = 8,281

[7]

b) Absorption costing income statement

Sales	3,092,895
Cost of Sales	(2,895,952)
Opening stock **(calc 1)**	190,190
Variable production costs (49,923 * (2,160,000/54,000))	1,996,920
Fixed production costs	1,050,000
	3,237,110
Closing stock **(calc 2)**	(341,158)
Gross profit	196,943
Selling and administration costs	(185,166)
Variable (105,740/52,870 * 47,583)	95,166
Fixed	90,000
Nett profit before tax	11,777

Calc 1: Opening stock

Variable	2,160,000
Fixed	1,000,000
	3,160,000
Units October	54,000
Cost per unit	58.52
Opening stock (3,250*58.52)	190,190

Calc 2: Closing stock

Production costs	3,046,920 (1,996,920 +1,050,000)
Units November (49,923)	49,923
Cost per unit	61.03
Closing stock (5,590*61.03)	341,158 (341,171 rounding)

(c) Reconciled difference between the two income statements

Net profit absorption costing method	11,777
Net profit direct costing method	(5,143)
	16,920
Reflected by:	
Opening stock	105,390
Absorption costing method	190,190
Direct costing method	84,800
Closing stock	122,310
Absorption costing method	341,158
Direct costing method	218,848

QUESTION 4 **[40]**

PART A **[15]**

(a) Gross profit/(loss) **R**

Sales 525 000 *(70 x 7 500)* + 800 000 *(100 x 8 000)* + 240 000 *(30 x 8 000)*	1 565 000
Less: Cost of Sales	(1 175 000)[1]
Gross Profit	390 000

[1] Opening stock	275 000
Purchases: 5 May 200 x R6 000	1 200 000
15 May 100 x R6 200	620 000
27 May 50 x R6 500	325 000
Available for sale	2 420 000
Less: Closing stock: 300 000 *(50x R6 000)* + 620 000 *(100 x R6 200)* + 325 000 *(50 xR 6 500)*	(1 245 000)
Cost of sales	1 175 000 [10]

Sales

Closing stock (May)		**10 May**	**20 May**	**25 May**	**31May(Balance)**
Opening stock	50	(50)	-	-	-
Purchase – 5 May	200	(20)	(100)	(30)	50
Purchase – 15 May	100	-	-	-	100
Purchase – 27 May	50	-	-	-	50

(b) Cost per TTT100 on 15 May 2011(WAM) **R**

1 May: Opening	50	@ R5 500	275 000
5 May: Purchase	200	@ R6 000	1 200 000
	250	@ **R5 900[1]**	1 475 000
10 May	(70)	@ R5 900	(413 000)
	180	@ **R5 900[2]**	1 062 000
15 May	100	@ R6 200	620 000
	280	@ **R6 007[3]**	1 682 000 [5]

[1] R1 475 000/250 = R5 900

[2] R1 062 000/180 = R5 900

[3] R1 682 000/280 = R6 007

QUESTION 4

PART B **[10]**

(a) Hours worked

Direct Labour @ R 24.50 per hour	673,750	
Rate	24.50	
Hours worked	27,500	[1]

(b) Labour efficiency variance

Actual hours at standard rate		Standard hours at standard rate	
27,500 x R 25		5 x 5,000 x R25	
687,500		625,000	
Variance =	(62,500)	unfavourable	[2½]

(c) Material quantity variance

Actual quantity at standard price		Standard quantity at standard price	
851,225 / 19,750 x R43.10 x R43		4kg x R43 x 5,000	
849,250		860,000	
Variance =	10,750	favourable	[2½]

(d) Actual material purchase price variance

Actual quantity at actual price		Actual quantity at standard price	
851,225	(given)	849,250	(from c)
Variance =	(1,975)	unfavourable	[2½]

(e) Variable overhead spending variance

Actual hours at actual rate		Actual hours at standard rate	
		27,500	x R 5.00
123,750	(given)	137,500	

Variance = 13,750 favourable [1½]

PART C **[15]**

(a) General ledger account

Materials inventory control

Opening balance	10 120	Issued:	
Purchases (direct)	100 000	Direct (45000+23000+9300)	77 300
Purchases (indirect)	6 300	Indirect	6 300
		Closing balance	32 820
	116 420		116 420

NB: If an amount is on the wrong side of the T-account, no marks are awarded for the specific amount. Exact descriptions are not required. [4]

(a) Gross profit/loss on Job 1

	R
Sales	160 000
Less: Total manufacturing costs	(124 880)
Work-in-process: Job 1	23 540
Direct material	45 000
Direct labour (20% x R180 000)	36 000
Manufacturing overheads allocated (113① x 180)	20 340
Gross profit	35 120

① Overhead allocation rate

Budgeted overheads (42 550 + 6 300 + 2 000)	R50 850
Budgeted machine hours (160 + 280 + 10)	450
Allocation rate	R113 per machine hour

[7]

(c) Over/under-applied overheads (Job 1)

Total actual overheads (51 050 + 6 300 + 2 200)		R59 550	
Actual overheads Job 1	(30% x R59 550)	R17 865	
Allocated overheads Job 1		R20 340	
Overapplied		R2 475	
Overapplied overheads will be CREDITED to the cost of sales account.			[4]