EDUCATION DEVELOPMENT INTERNATIONAL PLC
SAMPLE PAPER ANSWERS 2008
COST ACCOUNTING (ASE3017)
LEVEL 3
_____

QUESTION 1

(a) (i) Stock holding costs
          Any two of the following:
          Insurance, Material handling, Storekeeper's salary, Interest.

     (ii) Ordering costs
          Any two of the following:
          Postage, Paperwork, Telephone, Internet, Email, Purchasing Officer's salary

                                                                            (4 marks)

(b) (i) Reorder level = maximum usage x maximum lead time
          = 25kg x 12days   **= 300 kg**

                                                                            (2 marks)

     (ii) Minimum stock control level
          = Reorder level - (average usage x average lead time)
          = 300 - (20 x 10)   **= 100 kg**

          Maximum stock control level
          = Reorder level - (minimum usage x minimum lead time) + reorder quantity
          = 300 - (15 x 8) + 500   **= 680 kg**

                                                                            (4 marks)

     (iii) Annual stock holding costs
          = 10% x average stock x cost of material per kg.
          Average stock = Order quantity / 2 + minimum stock control level.
          = 500 / 2 + 100   **= 350 kg**
          Annual stock holding costs = 10% x 350 x £7.20
                                              = £252

                                                                            (3 marks)

Syllabus Topic 2: Stock control (2.3)

(c) Options available

Order size (kg)	200	500	1,000
Number of orders	5	2	1
Material cost per kg	20	19	18.5
Average stock(kg)	200	350	600
Ordering costs(£)	1,000	400	200
Stock holding costs(£)	400	665	1,110
Total material cost(£)	20,000	19,000	18,500
Total annual costs(£)	21,400	20,065	**19,810**

     Advice
     Order 1,000kg, at a discount price of £18.50 per kg, once every year.   (7 marks)

                                                                       (Total 20 marks)

QUESTION 2

(a)   **Process One Account**

	Kgs	£		Kgs	£
Direct material	3,800	200,000	Normal loss	570	11,400
Direct labour		145,210	Process Two	3,150	551,250
Overhead		231,440	Abnormal Loss	80	14,000
	3,800	576,650		3,800	576,650

Calculation of cost per kg and valuation of process outputs:

Cost/kg = £576,650 less 11,400 = 565,250 = £175
                    3,230 kg (85% of 3,800)

Process Two = 3,150 kgs x £175 = £551,250

Normal loss = 3,800 kg x 15% = 570 kgs x £20 per kg = £11,400

Abnormal loss = 3,230 kg – 3,150 kg = 80 kgs x £175 = £14,000

(6 marks)

(b)   **Process Two Account**

	Kgs	£		Kgs	£
Process One	3,150	551,250	Normal loss	600	10,800
Direct material	2,850	287,500	Fin Goods	5,520	1,131,600
Direct labour		89,690			
Overhead		189,360			
Abnormal Gain	120	24,600			
	6,120	1,142,400		6,120	1,142,400

Calculation of cost per kg and valuation of process outputs:

Cost/kg = £1,117,800 – 10,800 = 1,107,000 = £205
                  5,400 (90% of 6,000)

Normal Loss = 6,000 kg x 10% = 600 kgs x £18 **=** £10,800

Abnormal Gain = (5,520 – 5,400) = 120 £RM205 = £RM24,600

Finished Goods = 5,520 kg £205 = £1,131,600

(6 marks)

(c)   **Normal Loss/Gain Account**

	Kgs	£		Kgs	£
Process One	570	11,400	Abnormal Gain	120	2,160
Abnormal Loss	80	1,600	Bank a/c	1,130	21,640
Process Two	600	10,800			
	1,250	23,800		1,250	23,800

(4 marks)

ANSWER TO QUESTION 2 CONTINUED

(d)   **Abnormal Loss/Gain Account**

	Kgs	£		Kgs	£
Process One	80	14,000	Scrap sales	80	1,600
Scrap sales	120	2,160	Process Two	120	24,600
Profit & Loss a/c		10,040			
		26,200			26,200

(4 marks)

(Total 20 marks)

QUESTION 3

(a)   (i) **Fixed overhead costs**

Overhead	Total cost(£)	Fixed cost(£)	Variable cost(£)
Production	108,000	60,000	48,000
Selling and distribution	42,000	26,000	16,000
Administration	1,000	10,000	–
	160,000	**96,000**	64,000

Workings

Production overheads		Fixed	Variable
80% Capacity	108,000 =	F +	16,000 x V
100% Capacity	120,000 =	F +	20,000 x V

Variable cost V = (120,000 –108,000) / (20,000 – 16,000) = £3 per unit
Fixed cost = 108,000 - (3 x 16,000) = £60,000

(ii) **Breakeven point**
Variable cost per unit(£)

Direct material	5
Direct labour	3
Overheads (64,000/16,000)	4
	12

Unit contribution (£)   20 -12 = £8
Breakeven point   96000 / 8   **= 12,000 units**

(iii) **Margin of safety**

$$= \frac{16,000 - 12,000}{16,000} \times 100\%$$

=   **25%**

(9 marks)

(b)   (i) **Breakeven point**
Unit contribution (£)   18 - 12 = £6
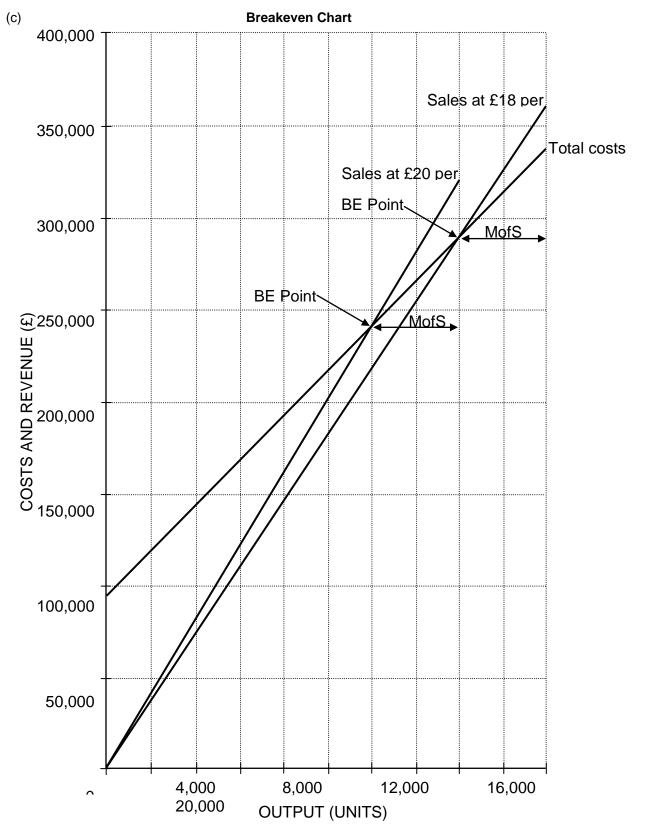Breakeven   96,000 / 6   **=16,000 units**

(ii) **Margin of safety**

$$= \frac{20,000 - 16,000}{20,000}$$

=   **20%**

(3 marks)

(c)

Breakeven Chart

(8 marks)

(Total 20 marks)

QUESTION 4

(a) (i)   **Budgeted Production**

Product (units)	P	Q	R
Sales	1,960	3,940	3,480
Less actual stock	260	340	280
Add max stock level	300	400	400
Budgeted production	**2,000**	**4,000**	**3,600**

(3 marks)

(ii)   **Fluid Loss in Production**

Fluid ratio in final product

Fluid (litres)	**Total**	**A**	**B**
Product P	2,000	500	1,500
Product Q	4,000	800	3,200
Product R	3,600	600	3,000
Total	9,600	1,900	7,700
Losses due to filtration (litres)			
Product P		125	375
Product Q		No loss	800
Product R		No loss	No loss
Total fluids lost to filtration (litres)		**125**	**1,175**

(8 marks)

Workings

Fluid loss Product P (litres)		
Fluid A	(500 / 0.8) – 500	= 125
Fluid B	(1,500 / 0.8) – 1,500	= 375
Fluid loss Product Q (litres)		
Fluid B	(3,200 / 0.8) – 3,200	= 800
Or		
Total fluid B loss (litres)	(4,700 / 0.8) – 4,700	= 1,175

(iii)   **Budgeted Purchases**

Fluid (litres)	A	B
Production requirement (litres)	2,025	8,875
Less actual stock (litres)	525	975
Add min stock level (litres)	400	800
Budgeted Purchases(litres)	**1,900**	**8,700**
Budgeted Purchases(£)	**22,800**	**71,340**

(5 marks)

(b) **Budget benefits**

(i)   Provides an acceptable plan for the business to work to.

(ii) Provides a basis for control. Progress can be measured against a plan.

(4 marks)

Additional acceptable answers could be:

(iii) Provides motivation for managers and workforce. (Provided managers have participated in the initial budgeting process for their department.)

(iv) Provides co-ordination between departments. (Each department is part of the overall budget.)

(Total 20 marks)

QUESTION 5

(a)
(i)

	RM01	**RM02**
Material Price Variance		
Standard Price	£3 per kg	£4 per metre
Purchases Quantity	<u>5,300 kg</u>	<u>2,400 metres</u>
	£15,900	£9,600
Actual cost of purchases	<u>£16,200</u>	<u>£9,400</u>
Material price variances	**<u>£300A</u>**	**<u>£200F</u>**

(3 marks)

	RM01	**RM02**
Material Usage Variance		
Production	1,250 units	1,250 units
Standard use per unit	4 kg	2 metres
Standard use	5,000 kg	2,500 metres
Actual usage	<u>5,100 kg</u>	<u>2,200 metres</u>
	100 kg	300 metres
Standard price	<u>£3 per kg</u>	<u>£4 per metre</u>
Material usage variance	**<u>£300A</u>**	**<u>£1,200F</u>**

(3 marks)

(ii)

	Grade 1	**Grade 2**
Labour Rate Variance		
Actual hours	2,400	1,300
Standard rate per hour	<u>£8</u>	<u>£10</u>
	£19,200	£13,000
Actual cost of labour	<u>£18,600</u>	<u>£12,000</u>
Labour rate variance	**<u>£600F</u>**	**<u>£1,000F</u>**

(3 marks)

	Grade 1	**Grade 2**
Labour Efficiency Variance		
Production	1,250 units	1,250 units
Standard hours per unit	2	1
	2,500 hours	1,250 hours
Actual hours	<u>2,400 hours</u>	<u>1,300 hours</u>
	100 hours	50 hours
Standard rate per hour	<u>£8</u>	<u>£10</u>
Labour efficiency variance	**<u>£800F</u>**	**<u>£500A</u>**

(3 marks)

(iii)

Fixed Overhead Variance

Expenditure variance	(24 x 1,200) – 28,000	=	**800F**
Volume variance	(1,250 – 1,200) x 24	=	**1,200F**

(2 marks)

QUESTION 5 CONTINUED

(b)

Raw Material Stock Account (RM01)

Bal b/d	600	Price variance	300
Purchases	16,200	Work in progress	15,300
		Bal c/d	1,200
	16,800		16,800

(3 marks)

Raw Material Stock Account (RM02)

Bal b/d	480	Work in progress	8,800
Purchases	9,400	Bal c/d	1,280
Price variance	200		
	10,080		10,080

(3 marks)

(Total 20 marks)