Answers

Section A

1 A

	Alpha			Beta			Gamma		
	Cash flows	Disc Rate	Present value	Cash flows	Disc Rate	Present value	Cash flows	Disc Rate	Present value
Inflows	£m	12%	£m	£m	12%	£m	£m	12%	£m
Year 1	190	0·89	169·1	180	0·89	160·2	10	0·89	8·9
Year 2	10	0·80	8·0	120	0·80	96·0	220	0·80	176·0
			177·1			256·2			184·9
Initial outlay			80·0			140·0			90·0
PI			2·2			1·8			2·1
Ranking			1			3			2

Option B ranks the projects according to the discounted future cash flows before deducting the initial outlay.

Option C ranks the projects according to their NPV's.

Option D ranks the projects according to the PI based on undiscounted cash flows.

2 A The discount rate must be expressed in real terms i.e. 10%

Option B adds the general rate of inflation to the required rate of return (10 + 3)
= 13%

Option C uses a market interest rate based on 3% inflation.
Market interest rate = [(1 + Real interest rate)(1 + General rate of inflation)] – 1
[(1·1 x 1·03) – 1] = 0·133
= 13·3%

Option D uses a market interest rate based on 5% inflation
Market interest rate = [(1 + Real interest rate)(1 + General rate of inflation)] – 1
[(1·1 x 1·05) – 1] = 0·155
= 15·5%

3 C Using a discount rate of 13%, the NPV is:

	Cash flows	Discount rate	Net cash flows
	£m	13%	£m
Year 0	90·0	1·00	90·00
Year 1	7·0	0·89	(6·23)
Year 2	7·0	0·78	(5·46)
Year 2	100·0	0·78	(78·00)
			(0·31)

The answer is 13·0% (to the nearest per cent).

Option B takes the annual interest rate = 10%

Option A uses the nominal value of the loan capital in the calculation. Using a discount rate of 7%, the NPV is:

	Cash flows	Discount rate	Net cash flows
	£m	7%	£m
Year 0	100·0	1·00	100·00
Year 1	7·0	0·94	(6·58)
Year 2	7·0	0·87	(6·09)
Year 2	100·0	0·87	(87·00)
			(0·33)

Option D calculates the cost on a pre-tax basis. Using a discount rate of 16%, the NPV is:

	Cash flows	Discount rate	Net cash flows
	£m	16%	£m
Year 0	90·0	1·00	90·00
Year 1	10·0	0·86	(8·60)
Year 2	10·0	0·74	(7·40)
Year 2	100·0	0·74	(74·00)
			(0·00)

4 B

5 C Dividend yield (Tern plc) = (Gross dividend per share/market value per share) x 100
= [(0·27 x 100/90)/300] x 100
= 10%

Market value per share = (Gross dividend per share/dividend yield) x 100
= [(0·15 x 100/90)/10] x 100
= £1·67

Option A calculates the dividend yield of the public listed company using the par value of the shares.
Market value per share = (Gross dividend per share/dividend yield) x 100
= [(0·15 x 100/90)/30] x 100
= £0·56

Option B does not 'gross up' the dividend of the private limited company to obtain the market value.
Market value per share = (Gross dividend per share/dividend yield) x 100
= [(0·15/10] x 100
= £1·50

Option D does not 'gross up' the dividend yield of the public listed company to obtain the dividend yield.
Market value per share = (Gross dividend per share/dividend yield) x 100
= [(0·15 x 100/90)/9] x 100
= £1.85

6 B The operating cash cycle is:
8 + 2 + 3 + 4 – 6 = 11 weeks

Option A takes the period from purchase on credit to sale on credit
2 + 3 + 4 = 9 weeks

Option C does not deduct any period for trade credit.
8 + 2 + 3 + 4 = 17 weeks

Option D adds the period for trade credit.
8 + 2 + 3 + 4 + 6 = 23 weeks

7 B

8 A Long-term capital employed = £6m/2
= £3m

Equity = 4/5 x £3m
= £2·4m

Operating profit = £6m/10
= £0·6m

Net profit after tax = (£0·6m – £0·1m) x 0.8
= £0·4m

ROSF = £0·4m/£2·4m x 100
= 16·7%

Option B does not deduct the interest payment before calculating PAT
Net profit after tax = £0·6m x 0·8
= £0·48m

ROSF = £0·48m/£2·4m x 100
= 20·0%

Option C calculates the ROSF using the operating profit:
ROSF = £0·6m/£2·4m x 100
= 25·0%

Option D calculates the equity as 1/5 rather than 4/5:
ROSF = £0·40 m/£0·6m x 100
= 66·7%

9 D

10 B $K_e = (D_1/P_0) + g$
$= (4{\cdot}0/30{\cdot}0) + 5$
$= \underline{18{\cdot}3}$

Option A uses the formula $(D_1/P_0) - g$

Option C divides the dividend paid of £4 million by the nominal value of the issued share capital rather than the number of ordinary shares in issue and uses the formula in A above.

Option D divides the dividend paid of £4 million by the nominal value of the issued share capital rather than the number of ordinary shares in issue.

11 C

12 C The expected return is [(110 x 0·95) + (0 x 0·05)] = 104·5.

When discounted at the risk-free rate [i.e. 7 (10 – 3) per cent], the present value of the loan stock is:

(104·5 /1.07) = 97·66.

The expected yield on the loan stock is, therefore:

[(110 – 97·66)/97·66] x 100

= 12·64%.

Option A applies the default risk to the interest rate only

The expected return is [(10 x 0·95) + (0 x 0·05)] = 9·5.

This is then discounted at the risk-free rate:

9·5/1·07

= 8·88%

Option B uses 110 as the denominator in the expected yield equation:

[(110 – 97·66)/110·0] x 100

= 11·22%

Option D discounts the expected return at a 10% discount rate

(104·5 /1·10) = 95·0.

The expected yield on the loan stock is, therefore:

[(110 – 95)/95] x 100

= 15·79%.

13 B The effective interest rate is made up as follows:

	%
Interest paid (4·5 + 1·2)	5·7
Net premium paid (1·0 – 0·8)	0·2
Cash settlement (5·0 – 4·5)	0·5
	6·4

Option A assumes the floor is not exercised as the actual interest rate (5·7%) is above the floor (5·0%). Hence, there is no cash settlement.

	%
Interest paid	5·7
Net premium paid (1·0 – 0·8)	0·2
	5·9

Option C takes the whole of the premium for the floor and ignores the cash settlement.

	%
Interest paid	5·7
Premium paid	0·8
	6·5

Option D takes the whole of the premium paid for the floor rather than the net premium.

	%
Interest paid	5·7
Premium paid	0·8
Cash settlement (5·0 – 4·5)	0·5
	7·0

14 C Using CAPM, the expected return for the equity shareholders is: 4% + [1·2 (11% – 4%)] = 12·4%
The predicted market value of a share is:

$P_o = D_1/K_o$

Where:

P_o = the value of an ordinary share

D_1 = the dividend received at the end of period 1

K_o = the required rate of return on the share

$$= \frac{25p}{0{\cdot}124}$$

= 201·6 pence

Option A reverses the numerator and denominator in the dividend valuation equation.

The predicted market value of the share is:

$$= \frac{12{\cdot}4}{0{\cdot}25}$$

= 49·6 pence

Option B multiplies the beta by the current market rate of return to obtain the expected return. 1·2 x 11·0% = 13·2%

The predicted market value of the share is:

$$= \frac{25p}{0{\cdot}132}$$

= 189·4 pence

Option D multiplies the beta by the difference between the returns to the market and the risk-free rate [1·2(11% – 4%) = 8·4%]

The predicted market value of the share is:

$$= \frac{25p}{0{\cdot}084}$$

= 297·6 pence

15 A
$$\frac{(5{\cdot}4 - 6{\cdot}5) \times 183 \times £10m}{(365 \times 100) + (6{\cdot}5 \times 183)}$$

= £53,410

Option B uses the strike rate in the denominator.

$$\frac{(5{\cdot}4 - 6{\cdot}5) \times 183 \times £10m}{(365 \times 100) + (5{\cdot}4 \times 183)}$$

= £53,697

Option C omits the LIBOR rate in the numerator.

$$\frac{5{\cdot}4 \times 183 \times £10m}{(365 \times 100) + (6{\cdot}5 \times 183)}$$

= £262,195

Option D omits the strike rate in the numerator and uses the strike rate in the denominator.

$$\frac{6{\cdot}5 \times 183 \times £10m}{(365 \times 100) + (5{\cdot}4 \times 183)}$$

= £317,300

16 D

17 C 6·8% – [(0.6 – 0.2)/2]

= 6·6%

A adds the difference between each interest rate to calculate the arbitrage benefit.
6·8% – [(0·6 + 0·2)/2]

B represents the fixed rate Lucas Lodge Hotels plc less half the difference between the floating rates.
[6·8% – (0·6/2)]

D represents the fixed rate Lucas Lodge Hotels plc less half the difference between the fixed rates.
[6·8% – (0·2/2)]

18 B

value of put	+	value of share	=	value of call	+	PV of exercise price
40p	+	490p	=	X	+	500p

Value of call = 30p

A value of put + value of share = value of call + exercise price

C value of put + PV of exercise price = value of call + value of share

D value of put + exercise price = value of call + value of share

19 D

		£
Cash paid €2,125,000 at 0.6220	=	1,321,750·0
Target payment €2,125,000 x 0.6179	=	1,313,037·5
Loss on spot market		(8,712·5)
Gain on futures contracts (0·6260 – 0·6192) x €2,125,000	=	14,450·0
Hedge efficiency	=	14,450/8712·5
	=	166%

Option A uses the correct figures but expresses the loss as a percentage of the gain rather than vice versa.

= 8,712·5/14,450

= 60%

Option B uses the futures price at the end of the 30-day period in calculating the cash paid.

Cash paid €2,125,000 at 0·6260	=	1,330,250·0
Target payment €2,125,000 x 0·6179	=	1,313,037·5
Loss on spot market		(17,212·5)
Gain on futures contracts (0·6260 – 0·6192) x €2,125,000	=	14,450·0
Hedge efficiency	=	14,450/17,212·5
	=	84%

Option C calculates the loss on the spot market as in B and expresses the loss as a percentage of the gain rather than vice versa.

Hedge efficiency = (17,212·5)/14,450

= 119·1%

20 A

Section B

1 (a) Annual operating cash flows can be calculated as follows:

	£m	£m
Sales (800 x £10,000)		8·0
Less		
Variable costs (800 x £7,000)	5·6	
Fixed costs	0·5	6·1
		1·9

Cash flows relating to the project are as follows:

Year	0	1	2	3	4
	£m	£m	£m	£m	£m
Machinery	(4·7)				0.8
Opportunity cost	(1·3)				
Annual cash flows		1·9	1·9	1·9	1·9
	(6·0)	1·9	1·9	1·9	2·7

The net present value of the project is:

	£m	£m	£m	£m	£m
Cash flows	(6·0)	1·9	1·9	1·9	2·7
Discount rate (12%)	1·0	0·89	0·80	0·71	0·64
Present value	(6·0)	1·69	1·52	1·35	1·73
NPV	0·29				

(*Examiner's note* A quicker method to calculate the present value of the annual cash flows would be to multiply the constant amount of £1·9m by the sum of the present values over 4 years using a 12% discount rate.)

(b) (i) The increase required in the initial outlay on machinery before the project becomes no longer profitable will be £0·29m. The machinery is already expressed in present value terms and so this figure is the same as the net present value of the project. This figure is 6·2% higher than the initial cost figure stated.

(ii) If the discount rate is increased to 14%, the NPV of the project is:

	£m	£m	£m	£m	£m
Cash flows	(6·0)	1·9	1·9	1·9	2·7
Discount rate (14%)	1·0	0·88	0·77	0·68	0·59
Present value	(6·0)	1·67	1·46	1·29	1·59
NPV	(0·01)				

Thus, the project will become unprofitable at approximately 14% cost of capital.

This represents a 16·7% increase in the cost of capital.

(iii) The decrease in the residual value of the equipment (R) that will make the project no longer profitable is calculated as follows:
(R x discount factor at the end of four years) – NPV of the project = 0
This can be rearranged as follows:
(R x discount factor at the end of four years) = NPV of the project
R x 0.64 = £0·29 m
R = £0·29m/0·64
= £0·45m
This represents a 43·8% decrease in the estimated residual value.

(iv) The decrease in annual net operating cash flows (C) to make the project no longer profitable is calculated as follows:
(C x annuity factor for a four-year period) – NPV = 0
This can be rearranged as follows:
(C x annuity factor for a four-year period) = NPV
C x 3·04 = £0·29m
C = £0·29m/3·04
C = £0·095m

This represents a decrease of 5·0% on the estimated annual net operating cash flows.

(c) The net present value calculations in (a) above indicate that the project will increase shareholder wealth if it is accepted. The sensitivity calculations in (b) above show by how much each of the key variables will have to change before the project becomes no longer profitable. It can be seen that the most sensitive factor is the annual net operating cash flows followed by the initial cost of the machinery, the discount rate and finally the residual value of the machinery. The annual net operating cash flows will require only a five per cent decrease before the project ceases to be profitable.

A problem with sensitivity analysis is that it does not indicate the likelihood of any change occurring. For example, the initial cost of machinery can be often established with a reasonable degree of certainty and, although the above analysis indicates that it is the second most sensitive variable, it may be the least likely to change. Thus, the degree of likelihood of change, as well as the accuracy of the estimates, relating to each variable should be carefully considered before a final decision is made.

2 (a) (i) Forecast profit and loss account for the year ended 31 May 2004

	Shares £000	Debentures £000
Profit before interest and taxation	980	980
Debenture interest payable	160	280
Profit before taxation	820	700
Corporation tax (20%)	164	140
Profit after taxation	656	560
Dividend	328	280
Retained profit for the year	328	280

(ii) Forecast earnings per share

Share issue	£656,000 / 1,800,000	
Debenture issue		£560,000 / 1,200,000
	36·4p	46·7p

(iii) Forecast level of gearing

$$\text{Gearing ratio} = \frac{\text{Loan capital}}{\text{(Ordinary share capital + reserves + loan capital)}} \times 100\%$$

$$\text{Share issue} = \frac{2{,}000}{(600 + 1{,}200 + 1{,}600 + 328 + 2{,}000)} \times 100\% = 34{\cdot}9\%$$

$$\text{Debenture issue} = \frac{(2{,}000+1{,}200)}{(600 + 1{,}600 + 280 + 2{,}000 + 1{,}200)} \times 100\% = 56{\cdot}3\%$$

Examiner's note. Other valid methods of calculating the level of gearing would have been acceptable in answering this part of the question.

(b) The level of operating profit, or profit before interest and taxation (PBIT), at which earnings per share under each method are equal (PBIT = x) is calculated as follows:

$$\frac{\text{Shares}}{\text{(x – B/E PBIT)(1 – tax rate)}} = \frac{\text{Debentures}}{\text{(x – B/E PBIT)(1 – tax rate)}}$$
$$\text{No. of shares} \qquad\qquad \text{No. of shares}$$

Where B/E PBIT is the profit before interest and taxation that is required to cover interest payments.

The level of PBIT at which earnings per share are equal is:

$$\frac{(x - £0{\cdot}16m)(1 - 0{\cdot}20)}{1{\cdot}8m} = \frac{(x - £0{\cdot}28m)(1 - 0{\cdot}20)}{1{\cdot}2m}$$

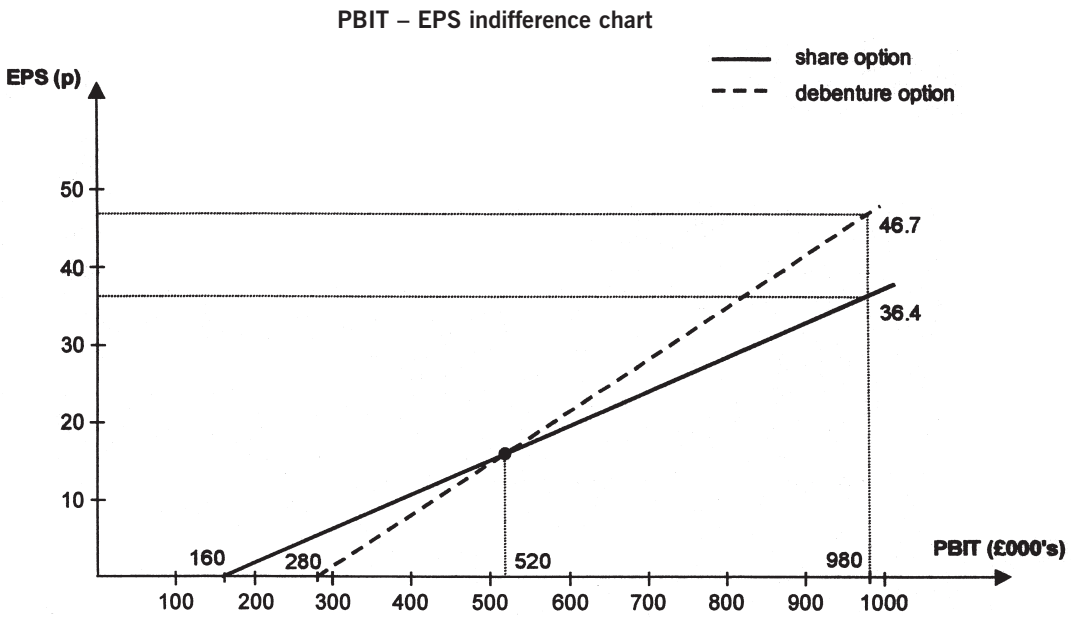
$$\frac{(0{\cdot}8\,x - £0{\cdot}128m)}{1{\cdot}8m} = \frac{(0{\cdot}8\,x - £0{\cdot}224m)}{1{\cdot}2m}$$

$$0{\cdot}96m\,x - £0{\cdot}1536m = 1{\cdot}44m\,x - £0{\cdot}4032m$$

$$0{\cdot}48m\,x = £0{\cdot}2496m$$

$$x = £0{\cdot}52m$$

Examiner's note This part of the question could also have been answered using a graphical approach (see below).



(a) The calculations in (a) above show that the debenture option provides a significantly higher EPS than the share option. It is also higher than the current earnings per share figure of 42·7p. The graph presented as an answer to part (b) above reveals that the debenture option will provide higher earnings per share for an operating profit, or profit before interest and taxation, of more than £520,000 and so there is a large 'margin of safety' for this option. However, the gearing ratio, which provides another measure of risk, is much higher under the debenture option than under the share option. It is also higher than the current gearing ratio of 47·6%.

The debenture option provides a significantly higher level of earnings per share than the share option in exchange for a significantly higher level of risk, as measured by the gearing ratio. Before a final decision can be made, the attitude of shareholders towards risk must be considered. In addition, the attitude of the existing shareholders towards a share issue must also be considered. The share option will result in a 50 per cent increase in the number of shares in issue and, as the new shares issued will be owned by a single, existing shareholder, this may result in a significant change in the ownership and control of the business.

3 (a) A merger will only be worthwhile for a company that is committed to maximising shareholder wealth, if gains arise that would not otherwise arise if the bidding and target businesses had not been combined. The value of a business may be defined as the present value of its future cash flows. This means that a takeover will make economic sense if the present value of the combined business exceeds the aggregate of the present values of each business when taken separately. Thus;

$PV_{\text{Combined business}} > PV_{\text{Bidding business}} + PV_{\text{Target business}}$

(b) There are various ways in which a gain may be achieved through a takeover. These include:

Eliminating competition
A business can take over another in order to eliminate market competition. By increasing market share, the combined business may be in a better position to influence prices and, in turn, profits. However, this can have an adverse effect on the consumer and so the government may intervene when mergers and acquisitions that have a significant effect on market share are being proposed.

Complementary resources
A business may decide to acquire another in order to gain access to resources or particular strengths that it lacks. For example, a business with a strong manufacturing base but with poorly-designed products may wish to acquire another business that has a strong manufacturing-design base. By combining the relative strengths of the two businesses, additional profits may be generated.

Benefits of scale
Acquiring another business will result in the creation of a larger business. This in turn, can lead to economies of scale. These economies may be gained through exerting market power (e.g. negotiating lower prices by purchasing in bulk) or by cost savings (e.g. avoiding costs where duplication occurs).

Underutilised resources
In some cases, the resources of a business may be underutilised. This may be due to a weak management team that has failed to exploit the full potential of the business. By taking over the business and installing a new management team, the resources of the business may be more fully utilised leading to additional profits being made.
(*Examiner's note*. Other answers to this part, such as market imperfections leading to undervalued shares in the target company, would have been acceptable.)

(c) There are various reasons why a takeover may not yield the expected benefits to the shareholders in the bidding company. These include:

Paying too much for the target company.
The management of the bidding company may pay too much for the target company. It is quite common for a premium to be paid to the shareholders of the target company in order to encourage them to sell their shares. Unless there are benefits accruing from the takeover, this premium paid will simply transfer wealth from the shareholders of the bidding company to the shareholders in the target company.

Hidden problems
Problems that were hidden at the time of the takeover may emerge later to eliminate any gains that were anticipated. These problems may have been deeply buried and so may have been difficult to unearth, even where proper due diligence procedures were carried out prior to a takeover agreement.

Integration issues
Integrating the two businesses following takeover may prove a difficult task. There may be differences in culture, management style, and organisational methods and systems that cannot be easily reconciled. Integration problems are most acute where there is an attempt to impose a common style and common systems following takeover. Where the former target company is allowed to maintain its own identity and its own systems, integration problems are likely to be much less of an issue.

Management attitudes and motivation
Once the takeover has been completed, managers may expect the enlarged business to achieve success without the need for much effort. They may feel that the takeover was the most important ingredient for success and expect that future operations will run smoothly. In some cases, an exhausting takeover struggle may leave managers with little energy or enthusiasm for ensuring that things go according to plan.

Section C

4 (a) Three key assumptions underpinning the use of the weighted average cost of capital (WACC) as the discount rate when evaluating investment projects are as follows:

1. **The capital structure of the company will remain unchanged.** This means that if the company raises new, long-term finance during the period of the investment, it should not have an effect on the weights attached to equity capital and loan capital. If these weights are changed, the weighted average cost of capital will change.
2. **The investment is small in relation to the overall size of the company.** The cost of equity and cost of loan capital reflect the marginal cost of these sources of finance. This, in turn, means that the weighted average cost of capital reflects the overall marginal cost on relatively small amounts of capital. The proposed investment must, therefore be relatively small in order to be financed by relatively small amounts of finance.
3. **The investment has the same level of systematic risk as the level of systematic risk of the company.** The discount rate used should reflect the systematic risk associated with the investment rather than the business. Thus, where the systematic risk of the company is different than that of the investment, it will be inappropriate to use the WACC of the company.

(b) The company is investing in a new type of business, the production of passenger safety equipment, in a different geographical region. It cannot be assumed that the current systematic risk associated with the company will be appropriate to these circumstances. However, if the other assumptions referred to above still hold, it is acceptable to adjust the WACC to take account of the systematic risk associated with the new investment.

This adjustment can be made by using a beta value for a similar company in the same business and operating within the same geographical region. However, such a company may be difficult to find in practice. Differences between companies relating to size, the level of risk associated with loan capital, cost structures and growth opportunities may undermine the validity of using the beta values of another company.

(c) The first step required is to ungear the beta of the Spanish company:

$\beta_a = \beta_e [E/E + D (1 - t)]$

Where:

β_a = asset beta
β_e = equity beta
E = equity proportion within capital structure
D = debt proportion within capital structure
t = corporation tax rate
= 1·6 [50/50 + 50 (1 – 0·25)]
= 0·914

The next step is to establish the gearing of Mansfield plc, based on market values:

		£m
Equity		
Ordinary shares	200m x £5·35	1,070
Loan capital		
6% Loan stock	£300m x 110/100	330
Bank loan		200
		530

Using the Capital Asset Pricing Model, the ungeared cost of equity for the investment will be:

$K_e = r_f + [E(r_m) - r_f] \beta_j$

Where:

K_e = expected return to equity
r_f = risk-free rate of return
$E(r_m)$ = the expected return from the market as a whole
β_j = the ungeared beta of the Spanish company
K_e = 5·1 + (10·4 – 5·1) 0·914
= 9·94%

Using MM (with taxes), the WACC will be:

$$WACC_g = K_{eu} \left(1 - \frac{Dt}{E + D} \right)$$

Where:

$WACC_g$ = Weighted average cost of capital to be used as the discount factor
Keu = Cost of equity and weighted average cost of capital of a similar ungeared company
= 9·94[1 – (530 x 0·25)/(1,070 + 530)]
= 9·12%

(*Examiner's note* In answering this part of the question, it has been assumed that the UK and Spanish stock market indices are highly correlated and therefore the betas of each company are calculated on a similar basis.)

5 (a) Option 1 Invoice in sterling

Cash received	=	$800,000/1·4569
	=	£549,111·12

Option 2 Forward market hedge

Forward rate	=	Spot rate – premium
	=	1·4569 – 0·011
	=	1·4459

The forward contract that will allow the company to receive £ sterling at the forward rate is:

$800,000/1·4459 = £553,288·6

Option 3 Currency futures

Sterling equivalent of order based on futures contract price:

= $800,000/1·4542
= £550,130·65

Number of contracts:

= £550,130·65/£62,500
= 9 contracts (to nearest whole number)

			$
Buy futures at			1·4542
Sell futures at			1·4472
Loss per contract			0·0070
Total loss	=	9 x 70 x $6·25 per tick	$3,937·50

	$
Amount received (in $) from the customer in six months' time	800,000·00
Less loss incurred from closing futures position	3,937·50
Total dollar receipts	796,062·50

£ sterling receipts on sale of dollars = $796,062·50/1·4559
= £546,783·77

(b) Option 1

Invoicing at a fixed exchange rate will guarantee £549,111·12 in six months' time. This option has the advantage that any foreign exchange risk is transferred to the US customer. However, the customer may not be prepared to accept such risk and there is a possibility that Kellynch plc will lose the order if it pursues this course of action. The feasibility of this option will depend on the relative bargaining power of the two parties. We are told in the question that the US market is highly competitive and that the company is keen to break into the market. Thus, this option should probably be discounted.

Option 2

Forward contracts eliminate the risk of adverse currency movements because the sterling value of the order is established immediately. By locking into a fixed exchange rate, losses can be avoided, but this also means that the company will be unable to benefit from any favourable currency movements during the period. However, as forward contracts are widely used in practice, it seems that many companies regard this as an acceptable price to pay in order to avoid future uncertainty.

Once a forward contract has been agreed, it is binding. Thus, if the US customer does not pay the amount owing, Kellynch plc will still be obliged to sell the dollars at the forward rate in six months' time. This will be done at the spot rate and if this is lower than the current forward rate of $1·4558, the company will incur a loss.

Forward contracts are negotiated between a bank and its customer and can be tailored to the requirements of the customer. Thus the contract value, the currency and the time period forward are a matter of agreement between the two parties. Where the customer has market power, it may be possible to negotiate a favourable forward market rate. However, the individual nature of the contracts means that transaction costs may be high, particularly for smaller companies.

Option 3

Currency futures are similar to forward contracts insofar that they bind the parties to an exchange of a specified amount of currencies at a pre-determined future date and exchange rate. However, the contracts are standardised rather than individually negotiated; the amount of money is fixed and there is a limited range of currencies and forward time periods available. This has the potential disadvantage that the standard contract values and maturity dates may not match precisely the requirements of the company.

The advantage of standardisation, on the other hand, is that transaction costs tend to be lower than for forward contracts. Furthermore, standardisation has allowed a market to develop and so futures contracts can be purchased and sold in the market. This means that a company can hedge against currency risk without the need to identify a counterparty.

Option 1 can be discounted for the reasons stated above. Option 2 provides the highest £ sterling receipts at the end of the contract period. Option 3 provides the lowest £ sterling receipts, assuming the spot rate and futures price in six months' time are correct. Thus, Option 2 appears to be the best option.

6 **(a)** The board of directors of a listed public company will usually consist of executive directors, who hold specific responsibilities within the business (for example personnel director), and non-executive directors, who do not have specific responsibilities. Non-executive directors are usually employed on a part-time basis and are not involved in day-to-day operational matters. Nevertheless, executive and non-executive directors have the same legal obligations towards the shareholders of the company.

Non-executive directors have a valuable role to play in the development of strategy and in monitoring the actions of the executive directors. The latter role has received greater emphasis as a result of the Cadbury Report. In carrying out this role, non-executive directors are expected to challenge the decisions of the executive directors and to highlight bad practice or poor performance.

Non-executive directors should add value to the company in some way and their ability to do so may depend, to a large extent, on the personal qualities that they possess. They should normally bring to the company broad experience of the commercial world as well as considerable expertise in their particular field. These qualities may help to add value through identifying new opportunities, developing new performance measures or improving existing control systems. In addition, non-executive directors may be a valuable source of new contacts for the company. Non-executive directors can often provide objective and independent advice to the Board of Directors. This should be of particular value during periods of change or crisis, when a detached view can help the executive directors maintain perspective.

(b) There are a number of potential problems connected with the role of the non-executive director. It has been suggested that there is a conflict between the strategic role that non-executives are required to play and their monitoring role – even though both are important in representing shareholders' interests. The development of strategic plans involves teamwork and cooperation between the executive and non-executive directors whereas the monitoring role requires that non-executive directors remain independent from the executive directors. Although non-executive directors should be able to fulfil the two roles, it may require a delicate balance to be struck.

There is a risk that the relationship between the executive and non-executive directors will compromise the monitoring role that non-executive directors must carry out. Executive directors normally have an influence over the selection of non-executive directors. In addition, crossholdings of non-executive directorships and social links between non-executive and executive directors may create close bonds between the executive and non-executive directors. Thus, non-executive directors may not always provide the independent voice that shareholders wish.

The attitude and behaviour of executive directors towards the non-executive directors can be crucial in ensuring that non-executive directors are able to carry out their roles effectively. There is a risk that the executive directors will seek to undermine the monitoring role of non-executive directors by failing to provide relevant information. In addition, the attitude and behaviour of non-executives towards their role can be a problem. Some non-executive directors have been accused of accepting too many non-executive director appointments. As a result, they have insufficient time to devote to the increasingly complex problems of directing and controlling a company.

The potential problems identified may be dealt with in various ways. To help ensure the independence of non-executive directors, shareholders may be given a bigger role in the recruitment and selection process. Regular meetings between non-executive directors and shareholders may help to strengthen links between the non-executive directors and the shareholders and help to create greater independence from the executive directors. Where non-executive directors challenge the executive directors on particular matters, there should be safeguards to ensure that they will not be penalised for so doing.

Non-executive directors must have access to all relevant information. This means representation on key committees of the board such as the audit committee, which is designed to improve the quality and integrity of financial reporting and controls, and the remuneration committee, which recommends compensation for executive directors. In addition non-executive directors must have the expertise to ensure that relevant information is identified and fully understood and the strength of character to ensure that executive directors are properly challenged. Given the increasing complexity of modern businesses, it may be necessary for non-executives to participate in training courses in order to fulfill their role effectively.

The increasing burdens placed on non-executive directors means that a significant amount of time must be spent in dealing with company affairs. Non-executives should be properly rewarded for the time spent in order to encourage a diligent attitude. In addition, some restriction on the number of non-executive appointments that an individual can hold may be desirable.
(Examiner's note: Other answers to this part of the question would have been acceptable)

Diploma in Financial Management Examination – Module B
Paper DB1 incorporating subject areas: Financial Strategy; Risk Management **June 2003 Marking Scheme**

Section B

1	**(a)**	5 marks cash flows, 2 marks discounting	7
	(b)	(i) 2 marks (ii) 2 marks (iii) 3 marks (iv) 3 marks	10
	(c)	1 mark per point (max. 3 marks)	3
			20
2	**(a)**	(i) 6 marks (ii) 2 marks (iii) 2 marks	10
	(b)	2 marks formula, 3 marks calculation	5
	(c)	2 marks per point (max. 5 marks)	5
			20
3	**(a)**	3 marks explanation	3
	(b)	2 marks per method	8
	(c)	2 marks per reason, 1 mark marker's discretion	9
			20

Section C

4	**(a)**	2 marks per assumption	6
	(b)	2 marks reasons, 2 marks problems	4
	(c)	4 marks beta, 3 marks cost of equity, 3 marks WACC	10
			20
5	**(a)**	Option 1, 1 mark, Option 2, 3 marks, Option 3, 5 marks	9
	(b)	Option 1, 2 marks, Option 2, 4 marks, Option 3, 4 marks, decision 1 mark	11
			20
6	**(a)**	2 marks per point (max. 6 marks)	6
	(b)	8 marks problems, 6 marks recommendations	14
			20