
Answers

Section A

1 C The earnings per share would be lowered as there are more shares in issue and the profit should be unaffected by the bonus issue. As the bonus issue simply re-arranges the equity of the business without affecting its total value or raising more cash, the other factors mentioned will be unaffected.

Share price	Cumulative number of shares tendered (000's)	Gross receipts £000's
£3.80	480	1,824
£3.00	1,130	3,390
£2.20	1,890	4,158*
£1.40	2,710	3,794

* Receipts maximised

3 B The weighted average cost of capital is:

Capital	Market value £m	Weight	Cost %	Weighted cost %
Ordinary shares	48.0	0.60	11	6.6
Loan capital	32.0	0.40	6.0	2.4
				<u>9.0</u>

Option A uses the nominal value of the shares and loan capital as weights.(i.e. £10m and £40m)

Capital	Weight	Cost %	Weighted cost %
Ordinary shares	0.20	11	2.2
Loan capital	0.80	6	4.8
			<u>7.0</u>

Option B is correct.

Option C uses a simple average of the cost of each element of capital and ignores the tax shield benefits of loan capital.
 = [(11 + 8)/2] = 9.5

Option D uses the current market value of the shares and loan capital as weights but does not deduct the tax shield from the loan interest.

Capital	Weight	Cost %	Weighted cost %
Ordinary shares	0.60	11	6.6
Loan capital	0.40	8	3.2
			<u>9.8</u>

4 B Earnings per share = Dividend per share x Dividend cover
 = £0.15 x 2.0
 = £0.30
 Share price = P/E ratio x EPS
 = 10 x £0.30
 = £3.00
 Dividend yield = (DPS/Share price) x 100%
 = (£0.15/£3.00) x 100%
 = 5.0%

Option A calculates the earnings per share incorrectly.

Earnings per share = Dividend per share/ Dividend cover
 = £0.15/2.0
 = £0.075
 Share price = P/E ratio x EPS
 = 10 x £0.075
 = £0.75

$$\begin{aligned} \text{Dividend yield} &= (\text{DPS}/\text{Share price}) \times 100\% \\ &= (£0.15/£0.75) \times 100\% \\ &= \underline{20.0\%} \end{aligned}$$

Option B is correct.

Option C uses the par value of the shares in the calculation.

$$\begin{aligned} \text{Share price} &= \text{P/E ratio} \times \text{Par value} \\ &= 10 \times £0.50 \\ &= \underline{£5.00} \end{aligned}$$

$$\begin{aligned} \text{Dividend yield} &= (\text{DPS}/\text{Share price}) \times 100\% \\ &= (£0.15/£5.00) \\ &= \underline{3.0\%} \end{aligned}$$

Option D calculates the earnings per share and share price incorrectly.

$$\begin{aligned} \text{Earnings per share} &= \text{Dividend per share}/\text{Dividend cover} \\ &= £0.15/2.0 \\ &= \underline{£0.075} \end{aligned}$$

$$\begin{aligned} \text{Share price} &= \text{P/E ratio} \times \text{par value} \\ &= 10 \times £0.50 \\ &= \underline{£5.00} \end{aligned}$$

$$\begin{aligned} \text{Dividend yield} &= (\text{DPS}/\text{Share price}) \times 100\% \\ &= (£0.075/£5.00) \\ &= \underline{1.5\%} \end{aligned}$$

5 B

	£
Cost of warrant	1.20
Exercise price	4.50
	5.70
Current share price	5.40
Conversion premium	0.30
Intrinsic value = £5.40 – £4.50	= £0.90

Option A calculates the premium as follows:

	£
Cost of warrant	1.20
Current share price	5.40
	6.60
Exercise price	5.40
Conversion premium	1.20

Option B is correct.

Option C calculates the intrinsic value as the conversion premium plus the cost of the warrant. (£1.20 + £0.30) = £1.50 and uses the incorrect conversion premium.

Option D uses the incorrect intrinsic value.

6 B

$$\begin{aligned} K_e &= (D_1/P_0) + g \\ &= (2.0/20.0) + 0.03 \\ &= \underline{0.13 \text{ or } 13\%} \end{aligned}$$

$$\begin{aligned} \text{Option A uses the formula } (D_1/P_0) - g \\ &= (2.0/20.0) - 0.03 \\ &= \underline{0.07 \text{ or } 7\%} \end{aligned}$$

Option C divides the dividend paid of £2 million by the nominal value of the issued share capital rather than the number of ordinary shares in issue and uses the formula $(D_1/P_0) - g$

$$\begin{aligned} &= (2.0/10.0) - 0.03 \\ &= \underline{0.17 \text{ or } 17\%} \end{aligned}$$

Option D divides the dividend to be paid of £2 million by the nominal value rather than the issued share capital.

$$\begin{aligned} K_e &= (D_1/P_0) + g \\ &= (2.0/10.0) + 0.03 \\ &= \underline{0.23 \text{ or } 23\%} \end{aligned}$$

7 B Option B is correct: a share repurchase involves a transfer from distributable reserves. Warrant holders do not receive a dividend. Securitisation involves converting assets that will provide a future stream of income into bonds. Preference share capital cannot be secured on the assets of the company.

8 C

Non-current assets	= £50m/2.4
	= £20.8m
Current assets	= £20.8m/0.8
	= £26m
Current liabilities	= £26m
Current assets (less inventory)	= 0.6 x £26m
	= £15.6m
Inventory	= £26m – £15.6m
	= <u>£10.4m</u>

Option A multiplies the sales by sales:non-current asset ratio

Non-current assets	= £50m x 2.4
	= £120m
Current assets	= £120m/0.8
	= £150m
Current liabilities	= £150m
Current assets (less inventory)	= 0.6 x £150m
	= £90m
Inventory	= £150m – £90m
	= <u>£60m</u>

Option B multiplies sales by sales:non-current assets ratio and the non-current assets by the non-current assets:current assets ratio

Non-current assets	= £50m x 2.4
	= £120m
Current assets	= £120m x 0.8
	= £96m
Current liabilities	= £96m
Current assets (less inventory)	= 0.6 x £96m
	= £57.6m
Inventory	= £96m – £57.6m
	= <u>£38.4m</u>

Option C is correct.

Option D multiplies the non-current assets by the non-current assets:current assets ratio.

Non-current assets	= £50m/2.4
	= £20.8m
Current assets	= £20.8m x 0.8
	= £16.6m
Current liabilities	= £16.6m
Current assets (less inventory)	= 0.6 x £16.6m
	= £10.0m
Inventory	= £16m – £10.0m
	= <u>£6.0m</u>

9 B To ensure a buffer stock of 200 units, the company must order when stock levels are at 680 units to allow for maximum lead times and usage [i.e. (40 units x 12) + 200 units]. When the lead time and consumption are at minimum levels, the consumption during the lead time is 2 x 25 units = 50 units. This will reduce the stock level to 680 – 50 = 630 units. At that point a new delivery is made (400 units) and so the maximum no. of units held is (630 + 400) = 1,030 units.

Option A uses the reorder level plus the EOQ quantity (680 + 400) = 1,080

Option B is correct.

Option C uses the minimum usage and lead times in calculating the re-order level = 250 units (2 x 25 units) + 200 units). When the lead time and consumption are at minimum levels, the consumption during the lead time is 2 x 25 units = 50 units. This will reduce the stock level to 250 – 50 = 200 units. At that point a new delivery is made (400 units) and so the maximum no. of units held is (200 + 400) = 600 units.

Option D adds the buffer stock (200) to the EOQ (400) and deducts the minimum usage rates and lead time (50) = 550 units.

10 A Option A is correct. The NPV method takes account of the time value of money and risk, uses cash flows rather than profit flows, takes account of all cash flows associated with the project and expresses the wealth created in absolute terms rather than relative terms. It is the method that is most suitable as no other method has all of these attributes.

11 C Statement 1 is not true because a risk-averse investor will reluctantly carry risk if there is some prospect of substantially high returns. Statement 2 is true because risk-seeking investors are more readily prepared to carry substantially high risk if they see some prospects of high returns.

12 C Using CAPM, the expected return for the ordinary shareholders is:
 $2\% + [1.2(8\% - 2\%)] = 9.2\%$

The predicted market value of a share is:

$$\begin{aligned} P_o &= D_1/K_o \\ &= \frac{25p}{0.092} \\ &= \underline{272} \text{ pence} \end{aligned}$$

Option A calculates the required return as $2\% + [1.2 \times (8\% + 2\%)] = 14.0\%$

The predicted market value of the share is:

$$\begin{aligned} &= \frac{25p}{0.14} \\ &= \underline{179} \text{ pence} \end{aligned}$$

Option B calculates the required return as:

$$2\% + (1.2 \times 8\%) = 11.6\%$$

The predicted market value of the share is:

$$\begin{aligned} &= \frac{25p}{0.116} \\ &= \underline{216} \text{ pence} \end{aligned}$$

Option C is correct.

Option D multiplies the beta by the risk premium to obtain the expected return. $1.2 \times (8\% - 2\%) = 7.2\%$

The predicted market value of the share is:

$$\begin{aligned} &= \frac{25p}{0.072} \\ &= \underline{347} \text{ pence} \end{aligned}$$

13 D The correct answer is Option D as both statements are incorrect. The investor described in Statement 1 is engaged in arbitrage transactions and not hedging. Preference shares are primary financial instruments and are not derivatives.

14 B Option B is correct. By exercising the option the holder will make a gain of $10,000(680p - 650p) = \text{£}3,000$. However, a premium of $\text{£}4,000 (10,000 \times 40p)$ has been paid, resulting in a net loss of $\text{£}1,000$. Option A is incorrect. Despite the net loss, the option should be exercised, otherwise the net loss would be $10,000 \times 40p = \text{£}4,000$.

Option C ignores the premium paid. Option D treats the call option as a put option. As the striking price is below the market price at the expiry date, a put option would be allowed to lapse.

15 C Option C is correct.

	%
Pay loan interest	(7.8)
Receive fixed interest	7.5
Pay floating rate	(7.1)
Effective rate	<u>7.4</u> (i.e. LIBOR + 0.5%)

Option A deducts the difference between the loan interest paid (7.8%) and the fixed rate received (7.5%) from LIBOR.

Option B deducts the difference between the fixed rate received (7.5%) and LIBOR (7.1%) from LIBOR.

Option D adds the difference between the fixed rate received (7.5%) and the floating rate paid (7.1%) to the loan interest paid (7.8%).

16 D Option D is correct.

$$\begin{aligned} \text{WACC} &= 10\% \{1 - [(40 \times 0.20)/(40 + 60)]\} \\ &= \underline{9.2\%} \end{aligned}$$

Option A uses the following formula:

$$\begin{aligned} \text{WACC} &= 10\% \{1 - [(40 \times 0.20)/40]\} \\ &= \underline{8.0\%} \end{aligned}$$

Option B uses the following formula:

$$\begin{aligned} \text{WACC} &= 10\% \{1 - [(40 \times 0.20)/60]\} \\ &= \underline{8.7\%} \end{aligned}$$

Option C uses the following formula:

$$\begin{aligned} \text{WACC} &= 10\% \{1 - [(60 \times 0.20)/(60 + 40)]\} \\ &= \underline{8.8\%} \end{aligned}$$

17 D The retention ratio is 60%. Thus, dividend growth = 60% x 10% = 6%.
 The dividend payout for the forthcoming year is 40% x 50p = 20p

$$\begin{aligned} \text{Predicted market value per share} &= [d1/(ke - g)] \\ &= [20/(0.1 - 0.06)] \\ &= \underline{500p} \end{aligned}$$

Option A uses the incorrect formula

$$\begin{aligned} &= d1/ke \\ &= 20/0.1 \\ &= \underline{200p} \end{aligned}$$

Option B uses the following incorrect formula:

$$\begin{aligned} \text{Predicted market value} &= [(d1/ke) + g] \\ &= 200 + 6 \\ &= \underline{206p} \end{aligned}$$

Option C uses the dividend payout ratio in calculating dividend growth (40% x 10% = 4%)

$$\begin{aligned} &= [20/(0.1 - 0.04)] \\ &= \underline{333p} \end{aligned}$$

18 A MM argue that, given certain restrictive assumptions, the dividend policy pursued by a company will have no effect on shareholder wealth. Hence Option A is correct.

Option B reflects the residual theory of dividends and Option C reflects the traditional view of dividends. Option D recognises the problems of market imperfections, which MM did not take into account.

19 A Statements 1 and 2 are correct. Statements 3 and 4 are incorrect. Non-executive directors should comprise the whole of the remuneration committee and audit committee.

20 D Futures contracts are standardised and can be traded on a futures exchange, whereas forward contracts are tailored to the buyer's requirements and cannot be traded in this way.

Section B

1 (a) The annual operating cash flows are calculated as follows:

	£m	£m
Sales (0.4m x £9)		3.6
Less		
Variable costs [0.4m x (£3.25 + £1.00)]	1.7	
Fixed costs	0.6	2.3
		<u>1.3</u>

The net cash flows of the project are:

	Year	0	1	2	3	4
	£m	£m	£m	£m	£m	£m
Equipment	(1.0)					0.5
Initial cost	(3.2)					
Annual operating cash flows			1.3	1.3	1.3	1.3
	<u>(4.2)</u>	<u>1.3</u>	<u>1.3</u>	<u>1.3</u>	<u>1.3</u>	<u>1.8</u>

Using CAPM, the cost of capital for the project is:

$$= 4\% + 1.2(9\% - 4\%)$$

$$= \underline{10\%}$$

The NPV of the project is:

	Year	0	1	2	3	4
	£m	£m	£m	£m	£m	£m
Net cash flows	(4.2)	1.3	1.3	1.3	1.3	1.8
Discount rate (10%)	1.0	0.91	0.83	0.75	0.68	0.68
Present value	(4.2)	1.2	1.1	1.0	1.2	1.2
NPV		<u>0.3</u>				

(b) (i) The decrease in the residual value of the equipment (R) necessary to make the project no longer worthwhile will be:

$$(R \times \text{discount factor at the end of four years}) - \text{NPV of the project} = 0$$

This can be rearranged as follows:

$$(R \times \text{discount factor at the end of four years}) = \text{NPV of the project}$$

$$R \times 0.68 = £0.3 \text{ m}$$

$$R = £0.3 \text{ m} / 0.68$$

$$= \underline{£0.4 \text{ m}}$$

This represents an 80% decrease in the forecast residual value.

(ii) The decrease necessary in net annual operating cash flows (C) to make the project no longer worthwhile can be calculated as follows:

$$(C \times \text{annuity factor for a four-year period}) - \text{NPV} = 0$$

This can be rearranged as follows:

$$(C \times \text{annuity factor for a four-year period}) = \text{NPV}$$

$$C \times 3.17 = £0.3 \text{ m}$$

$$C = £0.3 \text{ m} / 3.17$$

$$= \underline{£0.1 \text{ m}}$$

This represents a decrease of approximately 8% in the forecast net operating cash flows.

(iii) If the discount rate was 15%, the NPV of the project would be:

	Year	0	1	2	3	4
	£m	£m	£m	£m	£m	£m
Cash flows	(4.2)	1.3	1.3	1.3	1.3	1.8
Discount rate (15%)	1.0	0.87	0.76	0.66	0.57	0.57
Present value	(4.2)	1.1	1.0	0.9	1.0	1.0
NPV		<u>(0.2)</u>				

By interpolation we can derive the discount rate that will make the project no longer viable:

$$10\% + \{[0.3 / (0.3 + 0.2)] \times 5\} = 13.0\%$$

This represents an increase of 33% in the cost of capital.

- (c) The calculations in (a) above indicate that the NPV of the project is positive. The NPV decision rule is to accept those projects with a positive NPV as this will increase shareholder wealth. The sensitivity analysis carried out in (b) above reveals that significant changes would be required to the residual value and cost of capital before the project becomes no longer profitable. However, the net operating cash flows require a fairly small decrease before the projects cease to be profitable. The company may, therefore, wish to investigate these cash flows more thoroughly before a final decision is made.

The analysis excludes the marketing costs of £0.5 million as these are sunk costs at the point at which the decision is to be made. If, however, the NPV analysis had been undertaken prior to these costs being incurred, a negative NPV would arise.

2 Report to the directors of Branscombe Ltd

From: A. Candidate

An evaluation of the proposed factoring agreement

- (a) Cost of current policies

	£
Cost of financing debtors (70/365 x £15m x 11%)	316,438
Bad debts written off	110,000
	<u>426,438</u>
Cost of factoring	
Finance charges [45/365 x (80% x £15m) x 10%]	147,945
Factor service charge (3% x £15m)	450,000
Bank overdraft charges [45/365 x (20% x £15m) x 11%]	40,685
	638,630
Less: Administration cost savings	(145,000)
	<u>493,630</u>

The decrease in profits arising from employing the services of a factor will be:
 £493,630 – £426,438 = £67,192

The above calculations reveal that it would be less profitable to employ a factor than to keep with the existing arrangements.

- (b) Factoring is a widely-used method of raising short-term finance. It is a form of asset-backed security as it uses debtors as security for the amounts borrowed. The debt factor will often advance 80% (or more) of the value of the debts accepted, which can significantly improve the cash flows of the business. This advance is repaid when the debtors finally pay the amounts due. Where a debt proves to be bad, the particular agreement made between the client company and the factor will determine which party incurs the loss.

A debt factoring agreement can be particularly useful for growing businesses in need of regular injections of working capital. However, it is often more expensive than other forms of short term finance available and may be less flexible. Furthermore, the debt factor will not usually be prepared to provide a service to all types of businesses. Thus, factoring is not usually available to very small businesses as the cost of setting up the factoring agreement is prohibitive. Similarly, businesses operating in industries where credit disputes are part of the business culture, such as building and construction, will find it hard to obtain a factoring agreement.

As part of the factoring agreement, the factor will usually undertake the administration of credit sales for the client company. This involves recording credit sales, invoicing customers and chasing overdue accounts. Factors have considerable experience and expertise in this area and so can usually provide a more efficient and effective credit collection policy than the client company could provide by itself. Further benefits to the client company include cost savings, as a credit control department is not required, and the release of managers' time for other duties that are potentially more beneficial to the company. In the past, a factoring agreement has sometimes been viewed as a sign of financial weakness, which could make it difficult for the client company to obtain credit. However, this is not normally a problem nowadays and if necessary, the client company can conceal the factoring relationship by arranging to collect the debts on behalf of the factor.

Although debt factoring continues to be popular, some companies avoid this form of financing as they prefer to maintain control over all aspects of their relationship with customers. There is a risk that a factor will upset customer relationships.

- (c) Invoice discounting, offers an alternative form of raising short-term finance. This is another form of asset-backed security where the debtors of the client company are used as security for the finance raised. Invoice discounters will usually be prepared to advance 80% (or more) of the value of approved debts. However, the discounter does not take responsibility for sales administration and the client company must repay the amounts advanced irrespective of whether the debtors pay the amounts due. Invoice discounting can be a one-off arrangement and is normally cheaper than debt factoring. It is now a much more popular method of raising short-term finance than factoring.

(Examiner's note: Other financing methods may have been discussed in answering this part of the question.)

3 (a) (i) Theoretical ex-rights price

	£
Original shares 8 at £4.20	33.60
Right share 1 at £2.40	2.40
	<u>36.00</u>
Ex-rights price £36.00/9	<u>£4.00</u>

(ii) Value of rights

	£
Value of a share following the rights issue	4.00
Cost of acquiring a rights share	2.40
	<u>1.60</u>
Value of rights per original share	£1.60/8
	<u>£0.20</u>

(b) (i) Share price as at 30 November 2007 – rights issue
Workings – Existing P/E ratio

	£m
Operating profit	60.0
Less corporation tax (20%)	12.0
Profit available to shareholders	<u>48.0</u>
Earnings per share (EPS) £48.0m/160m	= £0.30
P/E ratio	= $\frac{\text{Share price}}{\text{EPS}}$
	= $\frac{£4.20}{£0.30}$
	= <u>14 times</u>

	£m
Operating profit in one year's time	75.0
Less Corporation tax (20%)	15.0
Profit available to shareholders	<u>60.0</u>
Earnings per share £60m/180m	= £0.333
Expected P/E ratio (14 x 95%)	= 13.3
Share price in one year's time	= EPS x P/E ratio
	= £0.333 x 13.3
	= <u>£4.43</u>

(ii) Share price as at 30 November 2007 – debenture issue

	£m
Operating profit in one year's time	75.0
Less Debenture interest (£48m x 7.5%)	3.6
	<u>71.4</u>
Less Corporation tax (20%)	14.3
Profit available to shareholders	<u>57.1</u>
Earnings per share £57.1m/160m	= £0.357
Expected P/E ratio (14 x 106%)	= 14.84
Share price in one year's time	= EPS x P/E ratio
	= £0.357 x 14.84
	= <u>£5.30</u>

Under the share option, the share price in one year's time will rise by 5.5% above the pre-rights share price whereas, under the debenture option, the rise will be 26.2%. Although the debenture issue will also increase the financial risk borne by shareholders, there is compensation in the form of significantly higher returns. Based on balance sheet values, the gearing ratio under the debenture option, as at 30 November, will be:

$$= \frac{[\text{Debenture capital}/(\text{Debenture capital} + \text{equity capital})] \times 100\%}{= \frac{48\text{m}}{(48\text{m} + 57.1\text{m} + 245\text{m})} \times 100\%}$$

$$= 13.7\%$$

This would normally be regarded as a low gearing ratio and so the financial risks arising from a debenture issue do not appear to be burdensome.

- (c) The price at which the rights shares are offered to shareholders is not normally of critical importance. Whatever the agreed price, the total assets of the business, and the proportion of those assets to which each shareholder is entitled, will be unaffected. To raise the £48m required, the company could have made a one-for-four issue at £1.20 per share, a one-for-two issue at £0.60 per share and so on without affecting the wealth of the shareholders. It is only the number of shares held by each shareholder that will be affected. However, the issue price of the rights shares must be below the market price of the shares. If the rights price is not sufficiently below the market price, the issue will not be attractive and will fail.

Section C

- 4 (a) The amount that should be hedged using either a forward contract or a futures contract is \$3,000,000 (i.e. \$10,000,000 – \$7,000,000). The cheapest hedge is to match the receipts from the US customer with the payments to the sub-contractors and so only the balance due to Mistor S.A. should be hedged in other ways.

- (b) Forward market hedge
 Forward rate = Spot rate – premium
 = 1.2300 – 0.021
 = 1.209

The forward contract will allow the company to receive euros at the above forward rate yielding:
 \$3,000,000/1.209 = €2,481,390 (to nearest €)

- (c) Currency futures
 Euro equivalent of amount due based on futures contract price for September 2007:
 = \$3,000,000/1.1950
 = €2,510,460

Number of contracts:
 = €2,510,460 / €125,000
 = 20 contracts (to nearest whole number)

	\$	
Buy futures at	1.1950	
Sell futures at	1.1640	
Loss per contract	<u>0.0310</u>	
Total loss	= 20 x 310 x \$12.50	<u>\$77,500</u>

	\$	
Amount received (in \$) from the customer in six months' time		3,000,000
Less loss incurred from closing futures position		<u>77,500</u>
Net dollar receipts		<u>2,922,500</u>

Euro receipts on sale of dollars = \$2,922,500/1.1860
 = €2,464,165 (to nearest €)

- (d) Forward contracts are agreed between a bank and its customer. They are tailored to the needs of the customer, which means that the contract value, the currency and the time period of the contract are the subject of negotiation. Forward contracts eliminate uncertainty by locking into a fixed exchange rate immediately. This avoids the risk of future losses, but also denies the company the opportunity of benefiting from any favourable future currency movements. Forward contracts are binding agreements that must be executed irrespective of whether the currency receipts or payments, for which the contract was designed to hedge, actually occur.

Currency futures, like forward contracts, are binding agreements. The parties to the agreement are committed to exchange an agreed amount of currencies at an agreed future date and exchange rate. Futures contracts, however, are standardised rather than individually tailored; the contract amounts for various currencies are fixed and there is a restricted range of currencies and forward time periods available. Although this means that contract values and maturity dates may not match the precise requirements of the company, it does reduce transaction costs, which tend to be lower than for forward contracts. It has also allowed a market to develop where futures contracts can be bought and sold, thereby eliminating the need to identify a counterparty.

The calculations in (b) and (c) above reveal that the forward contract hedge provides higher euro receipts than the currency futures hedge and so would be the better option. In practice, however, a comparison of the receipts from the two options can only be carried out at the end of the hedging period. At the time that the hedging decision is made, information about future currency movements is not available.

- 5 (a) Various methods may be used to help the company to identify the risks faced. These include the following:
- Round table debates** Staff may be invited to discuss the risks faced by the company with their colleagues in order for views to emerge.
- Brainstorming** Staff may be invited to brainstorming sessions, perhaps using an outside consultant as facilitator, to help identify key risks.
- Commissioned studies/surveys** The directors may commission specific studies (e.g. relating to market risk), perhaps using the services of outside consultants.
- Structured interviews/questionnaires** Key employees, customers and suppliers may be interviewed or asked to fill out questionnaires in order to help identify key risks.
- Checklists** Various checklists exist that seek to identify the most common forms of risk confronted by companies. These can be consulted to help identify those risks that are relevant to the company.
- Management reports** Senior managers may be required to prepare reports that identify risks in the areas for which they have responsibility. These reports may draw heavily on past experience and/or historical data.
- Testing and modelling** In some cases, it may be possible to use business and/or financial models to help identify and assess risks.
- Expert opinion** Outside experts may be employed to help the company identify risks and their potential impact.
- To help prioritise the risks identified, a risk map can be constructed. This is a chart that has one axis showing the severity of the impact of the various risks identified and the other axis showing the likelihood of the various risks occurring (assuming that appropriate control processes are not implemented). A risk map is often constructed in the form of a two-by-two matrix (i.e. four quadrants) dividing each axis into high and low elements. However a three-by-three, or six-by-six matrix can be used if a finer delineation of risks is required. When using a two-by-two matrix the following prioritisation can be used:
- High impact/high likelihood – Act immediately
 High impact/low likelihood – Consider action and have contingency plans in place
 Low impact/high likelihood – Consider action but no contingency plans
 Low impact/low likelihood – No action required but keep under regular review
- (b) Although the traditional role of the internal control department is to check the integrity of the financial reporting systems, this role may be expanded to help in the risk management process. The department may make an important contribution in this latter area by:
- providing assurances on the adequacy and effectiveness of existing risk management procedures
 - promoting a risk management philosophy within the company through risk-awareness programmes, training and providing relevant information to employees
 - offering suggestions on the improvement of existing risk management systems and procedures
 - identifying risks that have not been considered and suggesting appropriate courses of action
 - identifying opportunities to save on the costs of monitoring and controlling risks
- As the internal control department is detached from the day-to-day business problems, it may be possible to provide a more objective view of the risks confronting the company than that that provided by functional managers.
- To carry out the new role effectively, the internal control department must be provided with adequate resources. Suitably qualified staff must be recruited or trained who have good business awareness, are capable of communicating effectively with managers, and are able to work as members of a management team. The new role for the internal control department implies a close partnership between internal control staff and managers over a wide range of business functions. Thus, the traditional 'policing' role carried out by internal control staff will be less relevant to the new role that is being proposed.
- (Examiner's note: Other answers to each part of this question may have been acceptable.)*
- 6 (a) The main characteristics that a measure to be used as the basis of an incentive plan should possess are that it should:
- be consistent with the main business objectives;
 - properly reflect the achievement and performance of the directors;
 - be difficult to manipulate or distort in order to enhance the rewards received;
 - help to align the interests of directors with those of the shareholders;
 - be robust and not too dependent on particular operational or financing structures.
- (b) The use of earnings per share (EPS) has a number of drawbacks as a basis for rewarding directors. In particular:
- growth in EPS is not necessarily consistent with the company's stated objective of maximising shareholder value;
 - the profit figure on which EPS is based may be open to manipulation. For example, it may be possible to boost short-term earnings at the expense of long-term earnings by reducing staff training, cutting back on development expenditure etc;
 - the EPS figure may change as a result of changes in the numbers of shares in issue;

- EPS fails to take risk into account. EPS can be increased by taking on more risky ventures, which may not be in the long-term interests of shareholders;
 - annual growth of EPS may provide too short a time period to assess performance.
- (c) Total shareholder return (TSR) is a commonly-used measure for rewarding the directors of listed companies and for measuring wealth creation. It is based on the total returns received by shareholders, in the form of dividends received and increases in share price, over a particular time period. TSR is consistent with the stated objective of Easdon plc, and should help to align the interests of directors with those of the shareholders. TSR is also a fairly robust measure that can accommodate different operating and financing arrangements.

One of the main problems of TSR is that changes in the measure may be influenced by factors, such as changes in the economic outlook, which may not be under the control of the directors. Nevertheless, managers must manage within the economic environment with which they are faced and must be assessed accordingly. Even where TSR is influenced by the directors, it is likely to be impossible to attribute any changes to the efforts of particular directors. The time period chosen for measuring changes in shareholder returns is important. Easdon plc's objective of maximising shareholder value is normally a long-term goal, and so using a short time period, such as one year, would be inappropriate and may encourage manipulation of the figures. When using TSR, a suitable benchmark for evaluating performance should be employed. The most appropriate is usually the returns from similar companies over the same time period, although finding similar companies may be a problem.

EVA® is based on the idea that a company will increase shareholder wealth only when it generates a profit after all the opportunity costs of capital has been taken into account. EVA® for a period is derived as follows:

$$\text{EVA}^{\circledR} = \text{Net operating profit after tax} - (\text{Capital invested} \times \text{WACC})$$

EVA® is linked to the objective of shareholder value and should also help align the interests of directors with those of the shareholders. Under EVA®, the basis for reward is usually achievement during a particular financial year. However, to be consistent with the objectives of the business, the incentive plan should be based on maximising EVA® over the longer term. To encourage a longer-term perspective, a company may decide not to pay the whole bonus immediately. Instead, a portion may be credited to a 'bonus bank' from which amounts can be drawn down at a later date, subject to satisfactory future performance. Although EVA® employs accounting profit for the period in the calculations, adjustments are made to derive a measure that is closer to economic profit, which is seen as more authentic measure of performance. EVA® generated during a particular period is rarely reported to shareholders, who must rely on the remuneration committee for assurances that the directors are receiving their just rewards.

Section B

1	(a) 2 marks for operating cash flows, 3 marks for other figures in NPV calculation, 2 marks for discounting	7
	(b) 3 marks for (i), 3 marks for (ii) and 5 marks for (iii)	11
	(c) 1 mark per point	<u>2</u>
		<u>20</u>
2	(a) 3 marks for costs of current policy, 6 marks for cost of factoring, 1 mark for calculating profit decrease	10
	(b) 1 mark per point (max. 7 marks)	7
	(c) 1 mark per point (max. 3 marks)	<u>3</u>
		<u>20</u>
3	(a) 3 marks for (i), 2 marks for (ii)	5
	(b) 4 marks for (i), 6 marks for (ii) 2 marks discussion	12
	(c) 1 mark for stating price is not important, 2 marks for explanation	<u>3</u>
		<u>20</u>

Section C

4	(a) 1 mark for amount, 1 mark for reason	2
	(b) 2 for marks forward rate, 1 mark for calculation of amount received	3
	(c) 2 marks for no. of contracts, 2 marks for loss per contract, 3 marks for total euro receipts	7
	(d) 2 marks for forward contracts, 4 marks for futures contracts, 2 marks for comments	<u>8</u>
		<u>20</u>
5	(a) 1 mark for each method of identification (max. 7 marks), 3 marks for a method of prioritisation	10
	(b) 7 marks for role, 3 marks for issues	<u>10</u>
		<u>20</u>
6	(a) 1 mark per point (max. 4 marks)	4
	(b) 1 mark per point (max. 4 marks)	4
	(c) 6 marks TSR, 6 marks EVA®	<u>12</u>
		<u>20</u>