## Answers

## Diploma in Financial Management Examination - Module B

 Paper DB1 incorporating subject areas: Financial Strategy; Risk Management1 D Items 2, 3 and 4 are correct. Item 1 relates to economic exposure.
2 D The expected return is:
$5 \%+1 \cdot 2(8 \%-5 \%)=8 \cdot 6 \%$
The predicted value of a share is:
Po $=\mathrm{D} / \mathrm{r}$
$=£ 0 \cdot 60 / 0 \cdot 086$
$=£ 6.98$
Option A uses the rate of return in the dividend formula incorrectly:
Po $=£ 0 \cdot 60 / 0 \cdot 86$
$=£ 0 \cdot 70$
Option B uses the CAPM formula incorrectly:
$5 \% \times 1 \cdot 2(8 \%-5 \%)=18 \%$
$\mathrm{Po}=£ 0 \cdot 60 / 0 \cdot 18$
$=£ 3 \cdot 33$
Option C also uses the CAPM formula incorrectly;
$5 \%+1 \cdot 2(8 \%)=14 \cdot 6 \%$
Po $=£ 0 \cdot 60 / 0 \cdot 146$
$=£ 4 \cdot 11$
3 C Statement 2 is correct. Statement 1 is incorrect. Futures contracts are standardised.
4 A The cash settlement is $[£ 10 \mathrm{~m} \times\{(6 \cdot 5-6 \cdot 0) / 100\} \times(183 / 365)]=£ 25,068$
Option B includes the $1 \%$ cost of the cap $=£ 125,068$
Option C uses the strike rate only.
$[£ 10 \mathrm{~m} \times(6 \cdot 0 / 100) \times(183 / 365)] \quad=\underline{£ 300,822}$
Option D uses the LIBOR rate of $6.5 \%$ but does not deduct the strike rate.
[£10m x (6.5/100) $\times(183 / 365)$ ]
$=\underline{£ 25,890}$

5 A (1) The investor can buy the shares at 860p compared to a market price of 880p. The option should therefore be exercised.
(2) The investor can sell the $£ 600,000$ for $€ 900,000$ compared to $€ 870,000$ on the spot market. The option should therefore be exercised.

6 C The overall cost is calculated as follows:

|  | $\%$ |
| :--- | :---: |
| Fixed rate | $(6 \cdot 0)$ |
| Net receipts $(5 \cdot 5-5 \cdot 1)$ | 0.4 |
| Total cost | $5 \cdot 6$ |

Option A takes the LIBOR rate of $5 \cdot 1 \%$
Option B takes the bank's rate of $5.5 \%$
Option D adds the net receipts to the $6.0 \%$ fixed rate:
\%
Fixed rate
Net receipts (5•5-5•1)
Total cost$6 \cdot 4$

7 A Both statements are correct. Both types of report are required under the Combined Code.
8 C Gain per contract $=\$ 1 \cdot 80-\$ 1 \cdot 65=0 \cdot 15$
$\$ 600,000 / 1 \cdot 80=£ 333,333$
No. of contracts $=£ 333,333 / £ 62,500=5$ (to nearest whole number)
Total gain $=5 \times 1,500$ ticks $\times \$ 6.25=\$ 46,875$
Option A calculates on the basis of a gain of 150 ticks per contract $=\$ 4,687$
Option B calculates on the basis of 150 ticks per contract and treats the gain as a loss.
Option D treats the gain as a loss.

9 B Expected return $=[3 \cdot 0 \%+1 \cdot 1(7 \cdot 0-3 \cdot 0) \quad=7 \cdot 4 \%$
Actual return $(7 \cdot 4 \%+1 \cdot 4 \%) \quad=\underline{8.8 \%}$
Option A deducts the alpha factor from the expected return $(7 \cdot 4 \%-1 \cdot 4 \%)=\underline{6 \cdot 0 \%}$
Option C adds the alpha factor to $1 \cdot 1(7 \cdot 0+3 \cdot 0)=12 \cdot 4 \%$
Option D uses the incorrect CAPM formula
Expected return $=[3.0 \%+1 \cdot 1(7 \cdot 0+3 \cdot 0)]=\underline{14.0 \%}$
Actual return $(14.0 \%+1 \cdot 4 \%) \quad=\underline{15 \cdot 4 \%}$
10 B The correct answer is B. The graph shows that the writer of the call option runs the risk of unlimited losses.
11 C C refers to an opportunity cost that should be taken into account. The other costs should be ignored. A is a committed cost, $B$ refers to costs that do not vary with the decision, D refers to a non-cash charge.

12 A The correct answer is A. The distractors are a re-arrangement of the correct equation.
13 C

|  | Cash flow | Disc. Rate | PV |
| :--- | :---: | :---: | :---: |
|  | $£$ | $10 \%$ | $£$ |
| Yr 1 Interest | 6 | 0.91 | $5 \cdot 5$ |
| $\quad$ Redemption value $(25 \times £ 5)$ | 125 | 0.91 | $\underline{113.8}$ |
| Market value |  | $\underline{119.3}$ |  |
| Option A includes the nominal value of the debentures in the calculations. |  |  |  |
|  | Cash flow | Disc. Rate | PV |
|  | $£$ | $10 \%$ | $£$ |
| Yr 1 Interest | 6 | 0.91 | 5.5 |
| $\quad$ Redemption value | 100 | 0.91 | $\underline{91.0}$ |
| $\quad$ Market value |  |  | $\underline{96.5}$ |

Option B ignores the interest that is due for payment and takes the discounted value of the shares.
Option D ignores the interest that is due and takes the undiscounted value of the shares as the appropriate figure.
14 A $5 \cdot 0=X+0.4(8-X)$
$X=3 \cdot 0$
$Y=3.0+1.5(8.0-3.0)$
$Y=10.5$
Option B is $(1.5 / 0.4) \times(8.0-5 \cdot 0) \quad=11 \cdot 3 \%$
Option C is $3.0 \times$ risk premium ( $8.0-3.0$ ) $=15.0 \%$
Option D is $(1.5 / 0.4) \times 5.0=18.8 \%$
15 C The first statement is incorrect. Participating preference shares do not give the holder the right to participate at the AGM. The second statement is correct. Cumulative preference shares give the right to arrears of dividends.

16 B Share price

$$
\begin{aligned}
& =P / E \text { ratio } \times \text { EPS } \\
& =20 \times £ 0 \cdot 50 \\
& =£ 10 \cdot 00 \\
& =2 \% \times £ 10 \cdot 00 \\
& =£ 0 \cdot 20 \\
& =£ 0 \cdot 50 / £ 0 \cdot 20 \\
& =2.5 \text { times }
\end{aligned}
$$

Dividend
Dividend cover ratio
Option A transposes the dividend cover ratio figures ( $£ 0 \cdot 20 / £ 0 \cdot 50$ ) $=0 \cdot 4$ times.
Option C calculates the dividend yield by reference to the par value of the shares $=2 \% \times £ 1 \cdot 00=£ 0 \cdot 02$. Hence dividend cover $=25$ times.
Option D calculates the dividend per share by reference to the EPS figure $=2 \% \times £ 0 \cdot 50=£ 0 \cdot 01$. Hence dividend cover $=$ 50 times.

17 B Initial outlay (£40m/4•0)
$=£ 10 \mathrm{~m}$
Cash inflows ( $20 \% \times £ 10 \mathrm{~m}$ )
$=\underline{£ 2 \mathrm{~m}}$
Option A calculates the initial outlays as $(20 \% \times £ 40 \mathrm{~m})=£ 8 \mathrm{~m}$
The cash inflows are $20 \% \times £ 8 \mathrm{~m}=£ 1 \cdot 6 \mathrm{~m}$
Option C calculates the cash inflows as $(£ 10 \mathrm{~m} / 0 \cdot 20)=£ 50 \mathrm{~m}$
Option D calculates the initial outlay as $(4.0 \times £ 40 \mathrm{~m})=£ 160 \mathrm{~m}$
The cash inflows are $(20 \% \times £ 160 \mathrm{~m})=£ 32 \mathrm{~m}$

18 B Dividends $=(£ 60 \mathrm{~m} / 10) / 2$

$$
\begin{aligned}
& =£ 3 \mathrm{~m} \\
& =\mathrm{D} / \mathrm{Po} \\
& =(3 \cdot 0 / 60 \cdot 0) \\
& =5 \cdot 0 \%
\end{aligned}
$$

$$
r \quad=D_{1} / P o
$$

Option A uses the par value of the shares in the calculation of dividends
Dividends $=(£ 10 \mathrm{~m} / 10) / 2$

$$
=£ 0 \cdot 5 \mathrm{~m}
$$

$r \quad=\mathrm{D}_{1} / \mathrm{Po}$

$$
=(0 \cdot 5 / 60 \cdot 0)
$$

$$
=0.8 \%
$$

Option C uses the dividend cover ratio incorrectly
Dividends $=(£ 60 \mathrm{~m} / 10) \times 2$

$$
\begin{aligned}
& =£ 12 m \\
& =D_{1} / P 0 \\
& =(12 \cdot 0 / 60 \cdot 0) \\
& =\underline{20 \cdot 0 \%}
\end{aligned}
$$

$$
r \quad=\mathrm{D}_{1} / \mathrm{Po}
$$

Option D expresses the dividend paid of $£ 3$ million as a percentage of the issued share capital $(£ 3 \mathrm{~m} / £ 10 \mathrm{~m})=30 \%$

19 D Total CE $=£ 30 \mathrm{~m} / 3=£ 10 \mathrm{~m}$
Debt $\quad=0.4 \times £ 10 \mathrm{~m}=£ 4 \mathrm{~m}$
Equity $\quad=£ 10 \mathrm{~m}-£ 4 \mathrm{~m}=£ 6 \mathrm{~m}$
NPAT $=£ 30 \mathrm{~m} / 20=£ 1.5 \mathrm{~m}$
ROSF $\quad=£ 1.5 \mathrm{~m} / £ 6 \mathrm{~m}=25 \%$
Option A calculates total capital employed incorrectly:

| Total CE | $=£ 30 \mathrm{~m} \times 3$ | $=£ 90 \mathrm{~m}$ |
| :--- | :--- | :--- |
| Debt | $=0.4 \times £ 90 \mathrm{~m}$ | $=£ 36 \mathrm{~m}$ |
| Equity | $=£ 90 \mathrm{~m}-£ 36 \mathrm{~m}$ | $=£ 54 \mathrm{~m}$ |
| NPAT | $=£ 30 \mathrm{~m} / 20$ | $=£ 1.5 \mathrm{~m}$ |
| ROSF | $=£ 1.5 \mathrm{~m} / £ 54 \mathrm{~m}$ | $=2.8 \%$ |

Option B adds the debt to the capital employed figure.

| Total CE | $=£ 30 \mathrm{~m} / 3$ | $=£ 10 \mathrm{~m}$ |
| :--- | :--- | :--- |
| Debt | $=0.4 \times £ 10 \mathrm{~m}$ | $=£ 4 \mathrm{~m}$ |
| Equity | $=£ 10 \mathrm{~m}+£ 4 \mathrm{~m}$ | $=£ 14 \mathrm{~m}$ |
| NPAT | $=£ 30 \mathrm{~m} / 20$ | $=£ 1.5 \mathrm{~m}$ |
| ROSF | $=£ 1.5 \mathrm{~m} / £ 14 \mathrm{~m}$ | $=10.7 \%$ |

Option C expresses the net profit as a \% of total CE.
ROSF $=£ 1 \cdot 5 \mathrm{~m} / £ 10 \mathrm{~m}=15 \%$

20 A Both statements are correct.

1 (a) A company may divest itself of part of its business operations for a variety of reasons including:
Strategic review Following a review of its operations, a company may decide that certain operations no longer align with the strategic direction of the business. These operations may be sold in order to enable the company to focus on its core activities.

Poor performance A particular business operation may not meet the profitability requirements that are expected. If there is reason to believe that better returns can be achieved elsewhere, the company may decide to sell the operation and to re-invest the proceeds.
Financial problems A company may be experiencing financial problems. In order to overcome these problems, it may be necessary to raise additional finance by selling off certain business operations.

Risk reduction A business operation that is considered to be high risk may be sold in order to lower the risk profile of the company as a whole.
(Examiner's note: Other answers to this part of the question may have been acceptable.)
(b) Net assets (book value method)

(i) Po |  | $=$ Net assets at balance sheet values/No. of ordinary shares |
| ---: | :--- |
|  | $=£ 762 / 200$ |
|  | $=\underline{£ 3 \cdot 81}$ |
|  | $=$ Net assets at realisable values/No. of ordinary shares |
|  | $=[(876+24+52+408+330)-590] / 200$ |
|  | $=\underline{£ 5 \cdot 50}$ |
| (ii) Po | $=$ Do(1 +g$) /(\mathrm{r}-\mathrm{g})$ |
| (iii) Po | $=$ current dividend |
| Where: | $=$ expected annual growth in dividends |
| Do | $=$ required rate of return |
| r | $=£ 0 \cdot 30(1+0 \cdot 03) /(0 \cdot 07-0 \cdot 03)$ |
|  | $=£ 7 \cdot 73$ |
|  | $=P / E$ ratio $\times$ Earnings per share (EPS) |
|  | $=9 \times £ 1 \cdot 08^{*}$ |
| (iv) Po | $=£ 9 \cdot 72$ |
|  |  |
| *EPS is calculated as follows: | $=£ 216 / 200$ |
| EPS | $=£ 1 \cdot 08$ |

(c) The net asset (book value) method often provides a conservative share value. The use of historic cost and the omission of certain valuable resources of the business (e.g. brand names and goodwill) from the balance sheet conspire to produce total asset values that are well below current market values. The net asset (realisation) method will also usually produce a conservative figure for the value of a share. The value of a business as a going concern is usually higher than the value of its net assets. This may be due to the fact that certain valuable resources are again omitted from the calculations or may be because the value in use of certain assets is higher than their realisable values. The dividend growth model has theoretical appeal but depends on the accuracy of the assumption made concerning future dividends. In practice, it is often very difficult to predict future dividend policy.
The P/E ratio method may be the most reliable of the four methods. It uses similar companies in the same industry as a benchmark for the valuation process and may provide a useful indicator to the current market value of a share. However, the method assumes that Wolfson Ltd has the same risk and growth characteristics as the average for the industry. It may also be necessary to apply a discount to the share value figure derived to take account of the lack of marketability associated with the shares of a non-listed company.
(Examiner's note: Other answers to this part of the question may have been acceptable.)

2 (a) The effect on profit can be calculated as follows:

|  | £000s | £000s | £000s |
| :---: | :---: | :---: | :---: |
| Increase in sales |  |  |  |
| Category A customers ( $20 \% \times £ 4 \mathrm{~m}$ ) |  | $800 \cdot 0$ |  |
| Category B customers ( $30 \% \times £ 4 \mathrm{~m}$ ) |  | 1,200•0 |  |
| Category C customers ( $50 \% \times £ 4 \mathrm{~m}$ ) |  | 2,000•0 | 4,000-0 |
| Increase in variable costs |  |  |  |
| Materials [ $£ 4 \mathrm{~m} / £ 50) \times £ 10]$ | $800 \cdot 0$ |  |  |
| Overheads [(£4m/£50) x £5) | $400 \cdot 0$ | 1,200•0 |  |
| Increase in marketing costs |  | 1,500•0 |  |
| Increase in bad debts |  |  |  |
| Category A customers ( $1.0 \% \times £ 800$ ) | 8.0 |  |  |
| Category B customers ( $3 \cdot 0 \% \times £ 1,200$ ) | 36.0 |  |  |
| Category C customers ( $5 \cdot 0 \% \times £ 2,000$ ) | $100 \cdot 0$ | 144.0 |  |
| Increase in financing costs* |  |  |  |
| Category A customers | $6 \cdot 6$ |  |  |
| Category B customers | 13.2 |  |  |
| Category C customers | $27 \cdot 4$ | $47 \cdot 2$ | 2,891.2 |
| Net profit |  |  | 1,108.8 |
| *The financing costs are calculated as follows: |  |  |  |
|  |  | mer categ |  |
|  | A | B | C |
|  | £000s | £000s | £000s |
| Increase in sales | $800 \cdot 0$ | 1,200•0 | 2,000.0 |
| Additional debtors |  |  |  |
| (£1,200 $\times 40 / 365$ ) |  | 131.5 |  |
| (£2,000 $\times 50 / 365$ ) |  |  | $274 \cdot 0$ |
| Interest charges (10\%) | $6 \cdot 6$ | $13 \cdot 2$ | $27 \cdot 4$ |

(b) The calculations in (a) above show that profits will increase by approximately $£ 1 \cdot 1 \mathrm{~m}$ as a result of a $£ 4 \mathrm{~m}$ increase in sales. This return on sales, of approximately $28 \%$, is achieved despite a marketing campaign which adds a further $£ 1.5 \mathrm{~m}$ to the total expenses of the company.
This relatively high return on sales can be explained by the fact that most of the costs of producing the device are fixed. The contribution per device is $£ 35$ per unit (that is, $£ 50$ selling price less $£ 15$ variable costs) which gives a contribution-to-sales ratio of $70 \%$. Hence, any additional output will make a significant contribution to profit.
(c) A number of policies can be adopted to ensure that credit customers pay on time.

These include the following:

- Issue invoices promptly and ensure that the payment terms are specified on the invoice;
- Send out regular monthly statements and issue reminders when payment is overdue;
- Monitor debtors by producing an ageing analysis of debtors;
- Deal with outstanding queries quickly and efficiently;
- Chase slow payers by letter, e-mail and telephone;
- Ensure that no further credit is given to delinquent debtors.
- Offer financial incentives, such as discounts, to encourage prompt payment.
(Examiner's note: Other answers to this part of the question would have been acceptable).

3 (a) A stock exchange is, in essence, a market place that is designed to bring together providers of capital and companies seeking to raise capital. It acts as both a primary market and a secondary market for securities. The purpose of each of these markets is as follows:
(i) Primary market In this role, a stock exchange facilitates the issue of new shares and debentures by public companies. These companies would find it more difficult to raise finance without an organised and regulated market in which issues of securities can take place.
(ii) Secondary market In this role, a stock exchange facilitates the purchase and sale of 'second-hand' securities. Investors are more likely to purchase shares and debentures in companies if they are confident that these securities can be sold when required. A stock exchange enables investors to transfer their investments easily and quickly.
(b) The advantages of a company obtaining a stock exchange listing are as follows:

Share transferability As mentioned above, shares that are listed on a stock exchange can be transferred with ease and this, in turn should encourage investment.
Cost of capital Shares in listed companies are perceived by investors as being less risky than shares in equivalent unlisted companies because of their marketability. As the risks associated with listed shares are lower, the returns required by investors will also be lower. Hence, the cost of capital for listed companies will be lower.
Share price Shares that are traded on a stock exchange are closely scrutinised by investors, who will take account of all available information when assessing their worth. This results in shares that are efficiently priced, which should give investors confidence when buying or selling shares.

Company profile Companies listed on a stock exchange have a higher profile among investors and the wider business community than unlisted companies. This higher profile may help in establishing new contacts or in developing business opportunities.
Credit rating A listed company may be viewed by the business community as being more substantial and, therefore, more creditworthy than an equivalent unlisted company. This may help in obtaining loans and credit facilities.

Business combinations A stock exchange listing can facilitate takeovers and mergers. A listed company can use its shares as a form of bid consideration when proposing a takeover of another company. Shareholders in a target company will usually be more prepared to accept a share-for-share exchange when the shares offered are marketable and have been efficiently priced. Furthermore, when two companies propose to combine, the shareholders of each company can assess the attractiveness of the proposal more easily if the shares are listed.

The disadvantages of obtaining a stock exchange listing are as follows:
Flotation costs The costs of floating a company on a stock exchange can be high. The fees paid to professional advisors, such as lawyers and accountants, as well as underwriting fees often account for a large part of the total cost incurred.
Regulatory costs Once the company is floated, the cost of maintaining a stock exchange listing can be high. An important reason for this is the cost of additional regulatory requirements surrounding listed companies. The regulations of modern stock exchanges require greater transparency between management and owners and this causes some of the additional costs.
Control A company seeking a stock exchange listing must normally ensure that a substantial quantity of its total issued share capital is available to new investors. This means that the existing shareholders may suffer loss of control.
Investors expectations There is a widely-held view that investor expectations often put the directors of companies under pressure to produce gains over the short term. To do this, the directors may take decisions that have an adverse effect on the long-term profitability of the business. However, the evidence to support this view is flimsy.
Public scrutiny Listed companies attract much attention from investors, the financial press and the broadcasting media. Being in the public spotlight makes it difficult for a company to engage in controversial activities or to conduct sensitive negotiations. It also makes it difficult for directors to hide poor decisions.
Takeover target The existence of a ready market for shares in a listed company means that a listed company is much more vulnerable to a takeover than an unlisted company. A listed company may be particularly vulnerable when there is a fall in its share price, perhaps caused by disillusionment with the level of returns that are being provided.

4 (a) The cost of capital is the discount rate, which when used to discount the future cash flows of a company, will not result in a change in the value of the company. It represents the minimum required return from investors and has an important role in investment decision making. The NPV method, which has been adopted by Selwyn plc, uses the cost of capital as the appropriate rate for discounting future cash flows in order to derive the net present value (NPV) of an investment. For a company wishing to maximise shareholder wealth, projects that produce a positive NPV should be accepted and those with a negative NPV should be rejected. If the cost of capital is overstated, there is a risk that profitable projects will be rejected. If the cost of capital is understated there is a risk that unprofitable projects will be accepted.
(b) (i) Gordon dividend growth model

| $\mathrm{K}_{\mathrm{e}}$ | $=\left(\mathrm{d}_{1} / \mathrm{P}_{0}\right)+\mathrm{g}$ |
| :--- | :--- |
| Where: |  |
| $\mathrm{K}_{\mathrm{e}}$ | $=$ expected return to equity |
| $\mathrm{d}_{1}$ | $=$ the dividend in Year 1 |
| g |  |
| $\mathrm{P}_{\mathrm{o}}$ | $=$ the annual growth rate in dividends |
| $\mathrm{K}_{\mathrm{e}}$ | $=$ the current share price |
|  | $=(23 \cdot 15 / 550)+5 \%$ |
|  | $=\underline{9 \cdot 2 \%}$ |

(ii) Capital asset pricing model

The first step required is to ungear the beta of Cavendish plc:
$\beta_{a} \quad=\beta_{e}[E /\{E+D(1-t)\}]$
Where:
$\beta_{\mathrm{a}} \quad=$ asset beta
$\beta_{\mathrm{e}} \quad=$ equity beta
$\mathrm{E} \quad=$ equity proportion within capital structure
D $\quad=$ debt proportion within capital structure
$\mathrm{t} \quad=$ corporation tax rate

$$
=1 \cdot 4[80 /\{80+20(1-0 \cdot 25)\}]
$$

$=1 \cdot 18$
Using CAPM, the cost of equity for Selwyn plc will be:
$K_{e} \quad=r_{f}+\left[E\left(r_{m}\right)-r_{f}\right] \beta_{j}$
Where:
$\mathrm{K}_{\mathrm{e}} \quad=$ expected return to equity
$r_{f} \quad=$ risk-free rate of return
$\mathrm{E}(\mathrm{rm}) \quad=$ the expected return from the market as a whole
$\beta_{j} \quad=$ the ungeared beta of Cavendish plc
$\mathrm{K}_{\mathrm{e}} \quad=4.0+(8.0-4 \cdot 0) 1 \cdot 18$

$$
=8.72 \%
$$

(c) We can see that the methods used in (b) above produced different figures for the cost of equity capital. Given the different approaches used and estimated made, however, this is not surprising. The Gordon dividend valuation model is a multi-period model that establishes the return from a share, based on information relating to actual dividends and market prices and estimates concerning future growth rates in dividends. The estimation of future growth rates is normally the most difficult item to derive, particularly for a young company such as Selwyn plc.

CAPM is a single period model which derives a return that should be expected from the shares given the systematic risk associated with them. The CAPM approach also requires estimates to be made. Estimating the beta for a share, the market rate of return and the risk-free rate can all pose problems. In this case, the beta for Selwyn plc is not available. Instead, a beta for a similar business is used to help calculate the cost of equity. The reliability of the cost of equity figure derived is, therefore, dependent on the assumption that the two companies share the same risk characteristics. The CAPM approach has been criticised for considering just one factor when calculating equity return - the return on the market portfolio. Critics point out, however, that other factors, such as the size of companies are important in determining return.

5 (a) (i) Currency option
The results for each of the spot rates in six months time are as follows:

| (i) | (ii) |
| :---: | :---: |
| €1.55 | €1.45 |
| €1.50 | €1.50 |
| Exercise | Lapse |
| £ | £ |

£ sterling receipts
€10,000,000/1•50
6,666,667
€ $10,000,000 / 1 \cdot 45$
Option premium $[(€ 10 \mathrm{~m} / € 100) \times £ 1 \cdot 20]$

| $(120,000)$ |
| :--- |
| $6,546,667$ |$\quad$| $6,896,552$ |
| ---: |
| $6,776,552$ |

(ii) Forward exchange contract

The forward rate is:

| Spot rate | $€$ |
| :--- | ---: |
| Premium | $1 \cdot 4944$ <br> 0.0085 <br> $1 \cdot 4859$ <br>  <br> The sterling amount is:$\quad € 10,000,000 / 1 \cdot 4859 \quad=£ 6,729,928$ |

(iii) To do nothing

Sterling receipts for each of the spot rates in six months' time are as follows:

| Spot rate | $\frac{€ 1 \cdot 55}{£}$ | $\frac{€ 1 \cdot 45}{£}$ |
| :--- | ---: | :---: |
| €10,000,000/1.55 | $\underline{6,451,613}$ |  |
| €10,000,000/1.45 |  | $6,896,552$ |

(b) The results show that if the spot rate is $£ 1=€ 1.45$ in six months' time, the best option would have been to do nothing. In this case, the hedging instruments provide no real benefit. The forward exchange contract is based on a less advantageous exchange rate than the exchange rate in six months' time and the currency option will incur a significant premium cost even though the option will not be exercised.

If, however, the spot rate is $£ 1=€ 1.55$ in six months' time, the best option would have been to take out a forward exchange contract. The exchange rate is more advantageous than both the spot rate in six months' time and the exercise price on the currency option. In this case, the currency option provides a better outcome for the company than simply doing nothing despite the premium cost incurred in taking out the option.
(c) Currency options are designed to reduce the exposure of a business to adverse movements in exchange rates. It provides the option holder with the right to buy or sell one currency in exchange for another currency at some point in the future at a specified rate of exchange. The option holder is not obliged to take up the option and so retains the opportunity to benefit from favourable movements in exchange rates.

Currency options are particularly useful where there is some uncertainty over the timing or amounts of foreign currency receipts or payments. If the foreign exchange transaction does not take place the option can still be sold or exercised if it has any value. However, the premium cost of the option can make this a relatively costly hedging instrument and the option must be paid immediately it is taken out. Some stock exchanges trade in currency options but not all currencies can be traded in this way. Furthermore, currency options that are tailored to the particular needs of the option buyer cannot usually be traded.
Forward exchange contracts are binding agreements to buy or sell a specified amount of foreign currency at an agreed rate of exchange at some time in the future. The contract, which is often between a bank and its customer, may specify a particular future date for settlement of the contract or may allow settlement to take place, at the option of the customer, between two agreed dates. A forward exchange contract locks the customer into a fixed rate of exchange and protects against 'downside' risk. However, it also prevents the customer from any 'upside' potential arising from favourable exchange rate movements.

6 To: Board of Directors of Caius plc
From: A. Candidate
Directors' pay and conditions
When considering the pay and conditions of the directors of the company, the following principles and policies are recommended.

## Remuneration policy

The guiding principle should be that the pay and conditions of directors must be sufficient to attract, retain and motivate individuals who have the qualities required to manage the company. Many companies use incentive schemes to help in motivating directors and in aligning the interests of directors with those of the shareholders. Where incentive schemes are used, the amounts paid under the schemes should be based on the directors either meeting or exceeding clearly defined targets. If incentive schemes are properly structured, there is no reason why payments made under an incentive scheme should not comprise a significant proportion of the total remuneration of the directors. However, incentive schemes must always be related to performance and should be geared to the long-term rather than the short-term.

## Service contracts and loss of office

The service contracts of the directors must strike a fair balance between the needs of directors' and those of the shareholders. These contracts should not contain excessive notice periods; normally the period should be one year or less. The existence of contracts does not mean that the Board should tolerate poor performance. It should be prepared to dismiss directors that do not achieve agreed targets. Any compensation for loss of office should be reasonable and should be spread over time. Furthermore, compensation payments should come to an end when the director begins another job.

## Remuneration committee

An important principle to be followed is that no director should be allowed to determine his or her remuneration. Instead, a remuneration committee should be formed which has responsibility for setting the pay and conditions of the executive directors. This committee, which should consist entirely of independent non-executive directors, should be charged with developing appropriate remuneration policies and for establishing remuneration packages for individual directors. In carrying out their duties, the committee should enter into a dialogue with the chief executive officer as well as major shareholders concerning directors' remuneration.

## Communicating directors' pay and conditions to shareholders

The annual report of the company should include a report on the remuneration policy and details of the remuneration of each director. In addition, the chairman of the remuneration committee should attend the AGM and should be available to answer any questions relating to directors' remuneration that may arise.
(Examiners's note: Other answers to this question may have been acceptable.)
Marks
Section B
1 (a) 1 mark per point ..... 4
(b) 3 marks per method ..... 12
(c) 1 mark decision, 1 mark per point (max 4 marks) ..... 4
2 (a) 2 marks sales, 2 marks variable costs, 2 marks bad debts, 1 mark marketing costs, 4 marks financing cost, 1 mark profit calculation ..... 12
(b) 1 mark per point ..... 3
(c) 1 mark per point ..... 5
3 (a) 2 marks primary market, 2 marks secondary market ..... 4
(b) 2 marks per point (max 16 marks) ..... 16

## Section C

4 (a) 2 marks cost of capital, 3 marks reasons why important ..... 5
(b) 4 marks dividend growth model, 6 marks CAPM ..... 10
(c) 2 marks per point (max 5 marks) ..... 5
5 (a) 4 marks, option, 2 marks forward contracts, 2 marks do nothing ..... 8
(b) 1 mark per point ..... 4
(c) 3 marks characteristics, 5 marks advantages and disadvantages ..... 8
62 marks per point (max 20 marks) ..... 20

