Answers

Section A

1   C

Project	Investment outlay	Present value of net cash inflows	Profitability index
	£m	£m	
Japura	40	48	1·2
Branco	45	64	1·4
Tapajos	60	66	1·1
Napo	70	92	1·3

2   B   Junk bonds offer a higher rate of return because of the additional risk. Convertible bonds can normally offer a lower rate of return because of the opportunity to convert is seen as valuable to investors.

3   B   When the lead time and consumption is at minimum levels, the consumption during the lead time is 2 x 20 units = 40 units. This will reduce the stock level to 500 – 40 = 460 units. At that point a new delivery is made (650 units) and so the maximum no. of units held is (460 + 650) = 1,110 units.

Option A uses the reorder level plus the EOQ quantity (500 + 650) = 1,150
Option C uses the average usage (5 x 25 units) during the lead time. This gives [(500 – 125) + 650] = 1,025 units
Option D uses the maximum usage (10 x 50 units) during the lead time. This gives [500 – (10 x 50) + 650] = 650 units

4   B

Share price	Number of shares tendered	Cumulative no. of shares tendered	Total receipts (£m)
£0·75	6·0m	16·5m	12·38
£1·50	4·5m	10·5m	15·75
£2·25	3·2m	6·0m	13·50
£3·00	2·8m	2·8m	8·40

5   D   Under the weak form, new information is not anticipated and share prices change over time in a random manner.

6   B   Using CAPM, the required rate of return by investors is:
K_e = 4·0 + 1·2(8·0 – 4·0)
      = 8·8%

Using the dividend model that assumes a constant dividend payment, the predicted market value of the share is:
V_o = Dividend/required rate of return
      = £0·20/0·088
      = £2·27

Option A applies an incorrect CAPM formula:
K_e = 4 + 1·2(8 + 4)
      = 18·4
V_o = £0·20/0·184
      = £1·09
Option C uses the market rate of return in the dividend model
V_o = £0·20/0·08
      = £2·50
Option D uses an incorrect CAPM formula
K_e = 1·2(8 – 4)
      = 4·8%
V_o = £0·20/0·048
      = £4·17

7 C The capital structure following the rights issue will be

	£000
£0·50 Ordinary shares	5,000
Share premium	1,400
Retained profits	5,000
	11,400

After-tax earnings = 10% x £11,400 = £1,140
Earnings per share = £1,140/10,000
                    = 11·4 pence

Option A uses the issued share capital only in calculating the after-tax earnings
After-tax earnings = 10% x £5,000= £500
Earnings per share = £500/10,000
                    = 5·0 pence
Option B does not include the share premium in calculating the after-tax earnings.
After-tax earnings = 10% x £10,000 = £1,000
Earnings per share = £1,000/10,000
                    = 10·0 pence
Option C is based on the share capital figure rather than the number of shares = £1,140/5,000 = 22·8 pence

8 D Answer D is correct. Retained earnings are not a free source of finance as investors will expect a return in line with that required by the equity shares of the company. Invoice discounting does not involve the administration of debtors; it is simply a form of finance. A bank overdraft is repayable on demand.

9 C The value of a share in Mamore plc is [16 x (£2·4m/8m)]   = £4·80
The value of a share in Chubut plc is [16 x (£10m/20m)]   = £8·00
Hence there is a 3-for-5 issue.
The no. of shares in issue following the takeover is 24·8m and the combined profits after tax are £12·4m.
The EPS following the takeover is £12·4m/24·8m = £0·50

Option A uses a 5-for-3 issue rather than a 3-for-5 issue.
The combined no. of shares is 36m and the EPS is £12·4m/33·33m = £0·37
Option B takes the combined profits and divides it by the combined no. of shares of the two companies to calculate EPS i.e.
£12·4m/28m = £0·44
Option D uses the pre-tax profits in the calculations.
The value of a share in Mamore plc is [16 x (£3·6m/8m)]   = £7·20
The value of a share in Chubut plc is [16 x (£15m/20m)]   = £12·00
Hence there is still a 3-for-5 issue.
The no. of shares in issue following the takeover is 24·8m and the combined profits before tax are £18·6m. The EPS following the takeover is £18·6m/24·8m = £0·75

10 B Investors are interested in after-tax returns, hence the first statement is correct. The rate of return will be expressed in money terms if the cash flows are stated in money terms. Hence, the second statement is false.

11 D Both statements are incorrect. European options are exercised at a specific date. An in-the-money option has a more favourable strike price to the option holder.

12 B The expected return for the shares is:
[5% + 1·4(8 − 5)%] = 9·2%
Alpha value is:
11% − 9·2% = 1·8%

Option A takes the difference between the expected return on the shares and the returns to the market:
9·2% − 8% = 1·2%
Option C takes the difference between the actual returns on the share and the returns to the market:
11% − 8% = 3·0%
Option D takes the difference between the actual returns on the share and the beta value multiplied by the expected market risk premium:
11% − [1·4(8 − 5)%]
= 6·8%

13 D   The annual rate of growth in future dividends is 10% x 70% = 7%
Using the dividend growth model, the expected market value of each share is:
Po = Do(1 + g)/(r − g)
Po = 0·20(1 + 0·07)/(0·10 − 0·07)
Po = £7·13

Option A does not use decimals correctly when using the growth rate and the rate of return.
Po = 0·20(1 + 0·7)/(1·0 − 0·7)
Po = £1·13
Option B uses calculations based on the payout ratio rather than the retention ratio in the equation:
Po = 0·20(1 + 0·03)/(0·10 − 0·03)
Po = £2·94
Option C does not apply the growth rate to the numerator in the equation:
Po = 0·20/(0·10 − 0·07)
Po = £6·67

14 A   Kd = 6% x 100/80
= 7·5%
Ke = 10% + [(10% − 7·5%)] x 400/1500]
= 10·7%

Option B uses the nominal interest rate in the equation:
Ke = 10% + [(10% − 6%)] x 400/1500]
= 11·1%
Option C uses the nominal interest rate and the par values for equity and loan stock in the equation:
Ke = 10% + [(10% − 6%)] x 500/1100]
= 11·8%
Option D uses the debt/equity weighting in the equation incorrectly:
Ke = 10% + [(10% − 7·5%)] x 1500/400]
= 19·4%

15 A   Forward contracts and swaps cannot be traded on an organised exchange.

16 C   Directors are not required to conduct a review of internal controls at least once every two years. However, they should submit themselves for re-election at least once every three years.

17 B   The spot rate in three months time is higher than the strike rate and so the option will not be taken up. The total cost will be:

	£
5 million levs at £1 = 2·76 levs	1,811,594
Call option [(5m/100) x £0·30]	15,000
	1,826,594

Option A uses the put option premium in the calculations.

	£
5 million levs at £1 = 2·76 levs	1,811,594
Put option [(5m/100) x £0·25]	12,500
	1,824,094

Option C assumes that the option will be taken up and the put option premium is used:

	£
5 million levs at £1 = 2·75 levs	1,818,182
Put option [(5m/100) x £0·25]	12,500
	1,830,682

Option D assumes that the option will be taken up:

	£
5 million levs at £1 = 2·75 levs	1,818,182
Call option [(5m/100) x £0·30]	15,000
	1,833,182

18 C   The gain per contract is $(1{\cdot}1306 - 1{\cdot}1289) = 17$ ticks
Contract size = ($3 million ÷ 1·1306)/125,000
= 21 contracts
Gain on contracts = 21 x 17 x $12·50 = $4,463

Option A treats the hedging gain as a loss
Option B uses the spot price rather than futures price to convert at the end of the six months and treats the hedging gain as a loss:
21 x 32 x $12·50 = $8,400
Option D uses the spot price rather than futures price to convert at the end of the six months:
The gain per contract is $(1{\cdot}1306 - 1{\cdot}1274) = 32$ ticks
Gain on contracts = 21 x 32 x $12·50 = $8,400

19 B

	%
Company borrows at LIBOR + 60b.p.	7·00
Borrowing fixed at 6·65% + 60b.p.	7·25
Compensation payment to FRA bank	0·25

Option A uses the 3 v 6 bid figure as the relevant FRA rate:

	%
Company borrows at LIBOR + 60b.p.	7·00
Borrowing fixed at 6·60% + 60b.p.	7·20
Compensation paid to FRA bank	0·20

Option C assumes that the borrowing rate is fixed at the FRA figure (6·65%)

	%
Company borrows at LIBOR + 60b.p.	7·00
Borrowing fixed at 6·65%	6·65
Compensation received from FRA bank	0·35

Option D uses the 3 v 9 offer figure as the relevant FRA rate:

	%
Company borrows at LIBOR + 60b.p.	7·00
Borrowing fixed at 6·61%	6·61
Compensation received from FRA bank	0·39

20 B   Statement 1 is correct. Statement 2 is correct for MM but not for the traditional view.

Section B

1 **(a)** Incremental cash flows are as follows:

Year	0	1	2	3	4
	£000	£000	£000	£000	£000
Gross profit		65	60	50	35
Machinery	(70)				10
Working capital	(20)				20
Variable overheads		(27)	(30)	(24)	(18)
Fixed overheads		(5)	(5)	(5)	(5)
Cash flows	(90)	33	25	21	42

(b) Using a 10 per cent discount rate:

Year	0	1	2	3	4
	£000	£000	£000	£000	£000
Cash flows	(90)	33	25	21	42
Discount rate 10%	1·00	0·91	0·83	0·75	0·68
Discounted cash flows	(90)	30·0	20·8	15·8	28·6
Net present value	5·2				

The NPV is positive and so a higher discount rate is required. Try 14 per cent:

Year	0	1	2	3	4
	£000	£000	£000	£000	£000
Cash flows	(90)	33	25	21	42
Discount rate 14%	1·00	0·88	0·77	0·68	0·59
Discounted cash flows	(90)	29·0	19·3	14·3	24·8
Net present value	(2·6)				

The approximate internal rate of return is 10% + 4%[5·2/(5·2 + 2·6)] = <u>12·7%</u>

(c) The expected internal rate of return exceeds the cost of capital. This means that, by accepting the project, the wealth of the shareholders is expected to increase. Thus, the product should be launched.

(d) The internal rate of return (IRR) method of investment appraisal has a number of strengths. It takes into account all relevant cash inflows and outflows relating to the project and recognises both the time value of money and the risks involved in the project through the discounting process. It provides a clear decision rule concerning acceptance or rejection of a proposal and the expression of the final result in terms of a percentage seems to find favour among managers. However, where unconventional cash flows arise from a project, the IRR method can lead to multiple rates of return being calculated. Furthermore, when prioritising projects the IRR method may not deal adequately with differences in scale between competing projects. To maximise the wealth of shareholders, it is the absolute return rather than the relative return (as expressed by the IRR) that is important.

2 **(a)** The operating cash cycle is the time period between the outlay of cash for the purchase of stocks and the ultimate receipt of cash from the sale of the goods. For a business that purchases goods in their completed state and then re-sells them, the operating cash cycle can be calculated as follows:

Average stock turnover period + Average settlement period for debtors – Average settlement period for creditors.

The operating cash cycle is important because it can have a significant influence on the financing needs of a business: the longer the operating cash cycle of a business the greater its financing needs. In addition, the longer the operating cash cycle the greater the financing risks associated with the business. As a result, a business will usually monitor its operating cash cycle carefully and will seek to reduce it where possible.

(b) The operating cash cycle may be reduced by:

(i)   reducing the level of stock held, or
(ii) reducing the level of trade debtors, or
(iii) increasing the level of trade creditors, or
(iv) some combination of the above.

However, problems may be encountered when trying to do this in practice. Reducing stock levels can release cash to help eliminate the bank overdraft and can also help to reduce stock carrying costs. However, stock re-order costs will rise as more frequent orders will have to be made. In addition, there is a risk that the range and quantity of stock held will not be able to meet customer demand, resulting in lost sales and lost customer goodwill. Reducing the level of trade debtors can also release cash but again this may result in lost sales and lost customer goodwill, which may outweigh any benefits received. A discount

for early settlement is one way of reducing the level of trade debtors but will, again, be a cost to the business. Delaying payments to trade creditors may be possible although this may lead to loss of early settlement discounts and loss of supplier goodwill.

(c) The operating cash cycle is calculated as follows:

		No. of days
Average stockholding period		
Average value of stocks held/Average daily cost of sales	$\dfrac{(820 + 780)/2}{(2{,}630/365)}$	111
Add		
Average settlement period for debtors		
Average level of debtors/Average daily credit sales	$\dfrac{(414 + 460)/2}{(4{,}850/365)}$	33
		144
Less		
Average settlement period for creditors		
Average level of creditors/Average daily purchases	$\dfrac{(624 + 780)/2}{(2{,}590/365)}$	99
Operating cash cycle		45

(d) Debt factoring provides one possible short-term source of external finance for the business. This is a form of credit management offered by a financial institution known as a 'factor'. The role of the factor is to take control of the sales ledger of the business. This means that invoicing the customer, recording the sales and collecting the cash becomes the responsibility of the factor rather than the company. The responsibility for bad debts will depend on the terms of the factoring agreement. In some cases the factor will take responsibility and in other cases it is the client company. Where the factor takes responsibility, an additional fee is usually charged.

A factoring agreement can lead to an improvement in liquidity for the company as the factor is usually prepared to advance up to 80% of the value of approved trade debts. A factoring agreement is often very helpful for smaller businesses that are growing fast as it releases management time from credit control matters and allows the managers to focus on growing the business. However, in recent years it has proved to be a less popular form of raising finance through the use of debtors than invoice discounting. This is partly because it is a relatively expensive form of finance and partly because many businesses prefer to retain control of all aspects of their relationship with customers, including credit control.

Examiner's note: Other answers to part (d) of this question would have been acceptable.

3 **(a)** Venture capital is long-term capital that is available for around five years. It is normally offered by specialist institutions, and is aimed at small and medium-size businesses that have a fairly high level of risk. Venture capitalists are prepared to provide capital to such businesses if the expected returns are commensurate with the level of risk taken. This means that venture capitalists will only be interested in a business with good profit and growth prospects. The amount of capital invested will vary according to need and may be provided in stages, subject to certain key objectives being met. A venture capitalist may be interested in providing capital for the following types of business situations.

Business start-ups This can cover a wide range of situations from businesses that are still at the concept stage through to businesses that are about to begin operations. In practice it seems that venture capitalists prefer to invest in start-ups that are fairly well advanced.

Growth capital This is designed for businesses that have passed the start-up phase and are seeking capital for further expansion. It is, therefore, a form of second-stage funding.

Management acquisitions Venture capitalists will often provide capital for managers that wish to take over an existing business. The managers may be already employed by the business or they may be outside managers that are looking for a vehicle for their ambitions. This type of financing has proved to be extremely popular among venture capitalists in recent years.

Share purchases Capital may be provided to help finance the buy out of a part-owner of a business. This may be provided to someone outside the business or to the other part-owners.

Business recoveries Capital may be provided to help turn round the fortunes of a business that is currently experiencing difficulties.

Venture capitalists do not usually look for quick cash returns and are often content to wait for a cash return on realisation of the investment.

(b) The directors of a business must recognise that venture capitalists will be seeking high returns for the risks that they are prepared to undertake. This is likely to mean that the directors will be under considerable pressure to perform and to meet agreed targets. The venture capitalists will usually expect to work closely with the business in order to protect the investment

made. It is quite common for venture capitalists to have a representative on the board of directors and to be consulted over any proposed changes to agreed plans. It is also quite common for the venture capitalist to receive forecasts and other financial information to help monitor the direction and performance of the business. The venture capitalist will expect to receive an equity stake in the business and will often sell this stake after a period of five years or so. Hence, the directors should appreciate that the business may be sold to another business or come under the control of other investors at some stage.

(c) The key factors that a venture capitalist may take into account include the following:

Financial performance The financial track record of the business to date as well as forecast performance will be closely scrutinised. Where forecasts are presented, the validity of the underlying assumptions as well as key estimates will be checked.

The market for the products or services The nature of the market is an important factor to consider. The degree of competition, the threat of substitutes, the bargaining power of suppliers and employees and the barriers to market entry will be considered along with the size and future prospects for the market as a whole. In addition, the standing of the business within the market, as viewed by customers and suppliers, will be examined.

Owner investment The owners will usually be required to invest a significant proportion of their personal wealth in the venture. The venture capitalist will expect the owners to demonstrate their belief in the venture in a tangible way.

The quality of management The quality of management will often be the most important factor in the future success of the business. Thus, the management team will be examined to see whether it has the right blend of skills, and experience to manage the business. The commitment of the managers and their ability to work together as an effective team will also be scrutinised.

Risk The different types of risk that will be encountered by the business and the ways in which these risks will be managed will be identified and evaluated.

Business operations The nature and complexity of internal business operations will be examined to see whether these are dependent on key skills or key individuals. The effectiveness and efficiency of the operations will also be examined.

Exit route The venture capitalist will seek to realise the investment in the business at some point. This may be done in various ways, such as floating the company and then selling the shares through the Stock Exchange or by a sale to another business. The venture capitalist will normally identify a possible exit route and time frame before entering into the investment.

Examiner's note: Other points could have been made in answering this question.

Section C

4 **(a)** The view that the pattern of dividends has no effect on shareholder wealth is consistent with the view of dividends that has been developed by Miller and Modigliani (MM). The rationale for the MM view is that the value of a share is determined by the future earnings generated and by the level of risk associated with the business. The way in which future earnings are divided between dividends and retentions is not important providing any amounts retained by the business are invested in profitable opportunities. Any loss in dividend income resulting from retention will be compensated by a corresponding increase in the value of the underlying shares. As a result, the dividend decision will only effect the location of shareholder wealth.

The MM position contrasts with the traditional view of dividends, which suggests that dividends do have an effect on shareholder wealth. The argument here is that shareholders prefer certain returns in the form of dividend distributions to uncertain returns in the form of capital growth and value each form of return accordingly. However, MM argue that it would be illogical for dividend policy to affect the value of a share as it is possible for individual shareholders to create their own dividend policy by either buying new shares with dividend income received or by selling part of their shareholding to release cash if required. Hence, shareholders need not depend on the particular dividend policy of the company. However, in the real world, share transaction costs can make it difficult for investors to create 'home made' dividends as suggested. The MM view also contains other restrictive assumptions such as no share issue costs and a taxation policy that is neutral between dividend income and capital gains.

The Chairman may be correct in suggesting that the dividend policy of a company is important to investors. Two reasons may be cited to support his view.

Clientele effect
It is claimed that the dividend policy that a company adopts will attract a particular type of investor. This is because investors have a *preferred habitat* and will invest in companies that adopt dividend policies that reflect their needs. For example, shareholders that are dependent on dividends as a source of income to support their needs may prefer to invest in companies that adopt a high dividend payout ratio. Shareholders, on the other hand, who are not dependent on dividend income and are subject to a high marginal rate of tax may prefer to invest in companies that have a low dividend payout ratio.

Shareholders with a high marginal tax rate often prefer profits to be retained for future capital growth. In the UK, there are different taxation rules concerning dividend income and capital gains. Although both dividend income and capital gains may be liable to taxation, there are more generous tax breaks associated with the latter and investors have some discretion over the timing of a capital gains tax liability.

Information signalling
Dividends may be used to send coded messages to shareholders concerning the future prospects of the company. A fall in the dividend payout ratio, for example, may be interpreted as signalling a worsening of future prospects and may lead investors to sell shares in the company. This means that the directors must consider carefully the signalling effect of any dividend decision.

(b) The dividend policy may be examined by calculating the dividend payout ratio and dividend per share as follows:

Year ended 30 November	Dividend payout %	Dividend per share £
2000	49·2	0·40
2001	28·8	0·15
2002	63·2	0·48
2003	48·4	0·40
2004	37·2	0·36

The figures calculated above indicate a fluctuating dividend payout ratio and dividend per share over the five-year period. The dividend payout ratio varies considerably and ranges from a low of 28·8% in 2001 to a high of 63·2% in 2002. The dividend per share also varies considerably and this ratio ranges from a low of £0·15 in 2001 to a high of £0·48 in 2002. Such fluctuations may suggest that, in the past, the company has viewed dividends as simply being a residual. That is, it has taken the view that profits should only be distributed to shareholders in the form of a dividend if they are not required for profitable investment opportunities. We are told in the question that the company has been investing heavily in the past and that dividend payments were not considered to be a pressing issue.

For reasons mentioned in part (a) above, this type of dividend pattern may not appeal to investors who may be seeking a more stable pattern of dividends over time. In practice, many companies indicate their long-run dividend policy within their annual reports. This policy is often expressed in terms of a target payout ratio or a target dividend cover ratio.

(c) When formulating a dividend policy it is important to make the policy clear to investors and then to make every effort to keep to this policy. If a change in policy is considered necessary, the company should try to explain to investors the reasons for the change. Generally, investors do not like 'surprises' and may respond to unexpected or unexplained dividend changes by selling their shares and investing in companies that have more predictable dividend policies. The effect of this may be to depress the price of the shares.

It appears that managers also regard dividends as important. A famous study by Lintner found that companies often have a long-run target payout ratio and that, because of the signalling effect of dividends, changes in dividends between years are considered by managers to be more important than the overall level of dividends. As a result, many managers prefer to adopt a policy based on a smooth change in dividends over time, which reflects the long-term sustainable profits of the company.

Examiner's note: Other answers to this part of the question may have been acceptable.

5 **(a)** An interest rate cap is an option that sets an upper limit to the amount of interest a company will pay on a floating-rate loan for a series of interest rate periods. If the interest rate on the loan breaches the upper limit that has been agreed, the option is exercised and a cash settlement is received from the option writer at the end of the period. Although this hedging instrument helps to protect a company against interest rate rises, there is no lower limit and so it allows a company to take advantage of falling interest rates. An interest rate cap will normally cover a minimum period of two years and a maximum period of five years. The main disadvantage of an interest rate cap is the cost of the premium that is payable to the option writer.

An interest rate floor is an option that sets a lower limit to the amount of interest a company will pay on a floating-rate loan for a series of interest rate periods. The basic principles of the floor are the same as for a cap. If the lower limit is breached the option will be exercised and a cash settlement is made by the company at the end of the period. In this case, an advantage is the premium cost of the floor.

A collar is an option that sets both an upper limit and a lower limit to the rate of interest payable over a series of periods. It is, in effect, a combination of a cap and a floor. A collar agreement will cost less than a cap as the premium cost of the cap element is offset by the premium receivable from the floor element. It may be possible to arrange for a collar that has no premium, although in such cases the upper and lower limits agreed for future interest rates are likely to be very close together.

(b) The effective interest rate under each of the three scenarios suggested is as follows:

	(i) 4·7% %	(ii) 5·8% %	(iii) 7·3% %
Purchasing a cap			
Interest rate paid (LIBOR + 0·8%)	5·5	6·6	8·1
Premium paid	1·1	1·1	1·1
Cash settlement	–	–	(0·3)
Effective interest rate	6·6	7·7	8·9
Purchasing a collar			
Interest rate paid (LIBOR + 0·8%)	5·5	6·6	8·1
Premium received for the floor	(0·8)	(0·8)	(0·8)
Premium paid for the cap	1·1	1·1	1·1
Cash settlement	0·4	–	(0·3)
Effective interest rate	6·2	6·9	8·1
Do nothing			
Interest rate paid (LIBOR + 0·8%)	5·5	6·6	8·1

For each of the three possible outcomes, purchasing a collar will provide a lower effective interest rate than purchasing a cap. Thus, a collar is preferable to a cap. However, when comparing the option to do nothing with the collar option we can see that the effective interest rate will be the same when LIBOR is 7·3% and that the collar option provides a higher effective interest rate under the other two scenarios. Thus, to do nothing seems to be the best of the three options.

(c) An interest rate swap offers an alternative approach to managing interest rate risk. This would involve an arrangement between the company and another party (usually another company) whereby the company exchanges its stream of floating rate interest commitments for a stream of fixed rate interest commitments. The two parties to the arrangement may negotiate the swap arrangement directly between each other or through an intermediary. Some banks specialise in swap transactions.

Swaps can usually be arranged without difficulty. If a counterparty to the swap arrangement cannot be found, a swap bank is often prepared to undertake this task. Transactions costs for a swap agreement tend to be fairly low. The main costs are legal fees and these may be minimised through the use of standardised contracts. Swap agreements are also flexible and can cover a wide range of sums over a wide range of time periods. The main risk associated with this type of transaction is that the counterparty to the agreement will default on its obligations. However, it may be possible to protect against this risk where an intermediary is used. By paying an additional fee, responsibility for the swap obligations may be taken over by the intermediary.

Examiner's note: Other answers to this part of the question may have been acceptable.

6 Securitisation is a fairly recent financial innovation that involves bundling together homogenous, illiquid financial or physical assets and then transforming them into marketable securities. The financial assets that are transformed in this way are normally intangible claims to benefits such as loans held (e.g. residential mortgage commitments) and intellectual property (e.g. copyrights). The effect of securitisation is to capitalise the future income that is generated from the assets. This capitalised amount is then sold through the financial markets to generate cash for the owners of the assets.

Securitisation was first pioneered by banks, which bundled together the residential mortgage loans that they held and then converted them to interest-bearing securities. The securities were attractive to investors because they were usually backed by a guarantee from the bank; hence it was possible for the banks to offer lower rates of interest on the securities than on the mortgage loans providing the asset backing. In more recent years securitisation has extended to other forms of assets such as car loans and credit card debts held by lenders, future ticket sales by football clubs and future rental income from university accommodation. One of the more interesting examples of securitisation involves musicians selling securities that are backed by the music copyright to their songs. David Bowie, Rod Stewart, Michael Jackson and Iron Maiden have all successfully securitised their music portfolios.

Securitisation normally involves the setting up of a special-purpose vehicle, which will buy the asset from the owners and will then undertake the issue of securities (e.g. 10-year fixed-rate bonds) to the market. The bonds will be serviced by the income received from the underlying assets and, on the maturity of the bonds, the amounts owing may be repaid in various ways including the income generated from the underlying assets, the issue of new bonds or by the repayment of the underlying claims (e.g. where mortgage obligations provide the asset backing).

In order to improve the marketability of the securitisation issue, investors may be offered protection against the risk that the underlying assets are of poor quality. This may be done in various ways such as providing credit insurance from a third party or offering underlying assets of greater value than the value of the security issue.

Securitisation may be of benefit to a business in reducing credit risk. Where, for example, a bank has been engaged in heavy borrowing to a particular sector of industry, it may reduce its risk by selling some of the loans through a securitisation issue. The effect of such a move will also result in releasing tied-up capital and may enable the bank to use the capital for more profitable purposes. Securitisation can also be helpful to a business in overcoming short-term cash flow problems as the sale of the assets results in an immediate injection of funds. Investors may find a securitisation issue attractive because the securities are marketable and, for reasons already mentioned, the underlying assets provide good security.

Section B

1	**(a)**	2 marks each correct line of calculation (max. 9 marks)	9
	(b)	3 marks NPV calculations, 1 mark interpolation	4
	(c)	1 mark reason, 1 mark decision	2
	(d)	3 marks strengths, 2 marks weaknesses	5
			20

2	**(a)**	2 marks explanation, 2 marks importance	4
	(b)	2 marks how reduced, 3 marks problems	5
	(c)	2 marks stock, 2 marks debtors, 2 marks creditors, 1 mark calculation	7
	(d)	1 mark per point (max 4 marks)	4
			20

3	**(a)**	2 marks explanation, 5 marks types of business	7
	(b)	1 mark per point	4
	(c)	2 marks per point (max 9 marks)	9
			20

Section C

4	**(a)**	5 marks COO's views, 5 marks Chairman's views	10
	(b)	4 marks calculations, 2 marks comments	6
	(c)	2 marks per point	4
			20

5	**(a)**	3 marks cap, 3 marks floor, 2 marks collar	8
	(b)	3 marks cap, 3 marks collar, 1 mark do nothing, 1 mark comments	8
	(c)	2 marks per point	4
			20

6	5 marks explanation, 8 marks description, 7 marks benefits	20