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# Answers

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**1 (a) Net present value evaluation**

Year	1	2	3	4	5
	\$000	\$000	\$000	\$000	\$000
Sales revenue	1,575	1,654	1,736	1,823	
Selling costs	(32)	(33)	(35)	(37)	
Variable costs	(624)	(649)	(675)	(702)	
Before-tax cash flows	919	972	1,026	1,084	
Taxation at 30%		(276)	(292)	(308)	(325)
Tax benefits		263	197	148	443
After-tax cash flows	919	959	931	924	118
Working capital	(11)	(12)	(12)	(13)	
Project cash flows	908	947	919	911	118
Discount at 10%	0.909	0.826	0.751	0.683	0.621
Present values	825	782	690	622	73
	<b>\$000</b>				
PV of cash flows:	2,992				
Working capital:	(250)				
Initial investment:	(3,500)				
Net present value:	(758)				

The NPV is negative, with a value of minus \$758,000, and Project A is therefore not financially acceptable.

**Workings**

Year	1	2	3	4
Selling price (\$/unit)	2.100	2.205	2.315	2.431
Sales volume (units/year)	750,000	750,000	750,000	750,000
Sales revenue (\$/years)	1,575,000	1,653,750	1,736,250	1,823,250
	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
Selling cost (\$/unit)	0.042	0.044	0.046	0.049
Sales volume (units/year)	750,000	750,000	750,000	750,000
Selling cost (\$/years)	31,500	33,000	34,500	36,750
	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
Variable cost (\$/unit)	0.832	0.865	0.900	0.936
Sales volume (units/year)	750,000	750,000	750,000	750,000
Variable cost (\$/years)	624,000	648,750	675,000	702,000

Year	Capital allowance (\$)	30% Tax benefit (\$)	Year taken
1	875,000	262,500	2
2	656,250	196,875	3
3	492,188	147,656	4
4	1,476,562*	442,969	5

\*This figure includes the balancing allowance

Year	Working capital (\$)	Incremental investment (\$)
0	250,000	
1	261,250	11,250
2	273,006	11,756
3	285,292	12,286
4	298,130	12,838

### Alternative NPV evaluation

An alternative approach to evaluating the NPV of Project A is to subtract and add back the capital allowances, which are not cash flows.

Year	1	2	3	4	5
	\$000	\$000	\$000	\$000	\$000
Before-tax cash flows	919	972	1,026	1,084	
Capital allowances	(875)	(656)	(492)	(1,477)	
Taxable profit	44	316	534	(393)	
Taxation		(13)	(95)	(160)	118
After-tax profit	44	303	439	(553)	118
Add capital allowances	875	656	492	1,477	
After-tax cash flows	919	959	931	924	118

The evaluation will then proceed as earlier.

- (b) The directors' views on investment appraisal are discussed in turn.

#### Evaluation using either payback or return on capital employed

Both payback period and return on capital employed (ROCE) are inferior to discounted cash flow (DCF) methods such as net present value (NPV) and internal rate of return (IRR). Payback ignores the time value of money and cash flows outside of the payback period. ROCE uses profit instead of cash flow. Both payback and ROCE have difficulty in justifying the target value used to determine acceptability. Why, for example, use a maximum payback period of two years? DCF methods use the weighted average cost of capital of an investing company as the basis of evaluation, or a project-specific cost of capital, and both can be justified on academic grounds.

The company should also clarify why either method can be used, since they assess different aspects of an investment project.

#### Evaluation over a four-year planning period

Using a planning period or a specified investment appraisal time horizon is a way of reducing the uncertainty associated with investment appraisal, since this increases with project life. However, it is important to determine the expected life of an investment project if at all possible, since evaluation over the whole life of a project may help a company avoid sub-optimal investment decisions. In the case of CJ Co, for example, a further year of operation may lead to Project A generating a positive NPV.

#### Scrap value is ignored

Scrap value, salvage value or terminal value must be included in the evaluation of a project since it is a cash inflow. Ignoring scrap value will reduce the NPV and may lead to rejection of an otherwise acceptable investment project.

#### Working capital recovery is ignored

If an investment project ends, then working capital can be recovered and it must be included in the evaluation of an investment project, since it is a cash inflow. In the case of CJ Co, the directors' decision to ignore working capital recovery means ignoring a fourth year cash inflow of \$298,130.

#### A balancing allowance is claimed at the end of the fourth year of operation

Introducing a balancing allowance which can only be claimed when allowed by the taxation authorities will distort the taxation aspects of the investment appraisal. If it is anticipated that a project will continue beyond the fourth year, including a balancing allowance in the evaluation will overstate cash inflows and hence the NPV, potentially leading to incorrect investment decisions being made.

- (c) The first step is to ungear the equity beta of GZ Co. This removes the effect of the financial risk of the company on the value of its equity beta. It is usual to assume that the beta of debt is zero and hence the un gearing formula is as follows:

$$\beta_a = \beta_e V_e / (V_e + V_d(1 - T))$$

$$\text{Substituting, the asset beta} = \beta_a = 1.5 \times 90 / (90 + (0.7 \times 30)) = 1.216$$

$$\text{Using percentages: asset beta} = \beta_a = 1.5 \times 75 / (75 + (0.7 \times 25)) = 1.216$$

The asset beta of GZ Co reflects only the business risk of the new business area.

The next stage is to regear the asset beta into an equity beta that reflects the financial risk of the investing company. Rearranging the un gearing formula used earlier gives:

$$\beta_e = \beta_a (V_e + V_d(1 - T)) / V_e$$

$$\text{Substituting, the equity beta} = \beta_e = 1.216 \times (180 + (0.7 \times 45)) / 180 = 1.429$$

This regeared equity beta can be inserted in the capital asset pricing model equation to give a project-specific cost of equity:

$$k_e = E(r_i) = R_f + \beta_e (E(r_m) - R_f)$$

$$\text{Substituting, the cost of equity} = k_e = 4 + (1.429 \times 6) = 12.6\%$$

- 2 (a) Nugfer Co is looking to raise \$200m in cash in order to acquire a competitor. Any recommendation as to the source of finance to be used by the company must take account of the recent financial performance of the company, its current financial position and its expected financial performance in the future, presumably after the acquisition has occurred.

#### Recent financial performance

The recent financial performance of Nugfer Co will be taken into account by potential providers of finance because it will help them to form an opinion as to the quality of the management running the company and the financial problems the company may be facing. Analysis of the recent performance of Nugfer Co gives the following information:

Year	2007	2008	2009	2010
Operating profit	\$41.7m	\$43.3m	\$50.1m	\$56.7m
Net profit margin	34%	34%	32%	30%
Interest coverage ratio	7 times	7 times	4 times	3 times
Revenue growth		3.8%	23.0%	20.9%
Operating profit growth		3.8%	15.7%	13.2%
Finance charges growth		3.3%	101.6%	50.4%
Profit after tax growth		4.0%	1.2%	0.8%

$$\text{Geometric average growth in turnover} = (189.3/122.6)^{0.33} - 1 = 15.6\%$$

$$\text{Geometric average operating profit growth} = (56.7/41.7)^{0.33} - 1 = 10.8\%$$

One positive feature indicated by this analysis is the growth in revenue, which grew by 23% in 2009 and by 21% in 2010. Slightly less positive is the growth in operating profit, which was 16% in 2009 and 13% in 2010. Both years were significantly better in revenue growth and operating profit growth than 2008. One query here is why growth in operating profit is so much lower than growth in revenue. Better control of operating and other costs might improve operating profit substantially and decrease the financial risk of Nugfer Co.

The growing financial risk of the company is a clear cause for concern. The interest coverage ratio has declined each year in the period under review and has reached a dangerous level in 2010. The increase in operating profit each year has clearly been less than the increase in finance charges, which have tripled over the period under review. The reason for the large increase in debt is not known, but the high level of financial risk must be considered in selecting an appropriate source of finance to provide the \$200m in cash that is needed.

#### Current financial position

The current financial position of Nugfer Co will be considered by potential providers of finance in their assessment of the financial risk of the company. Analysis of the current financial position of Nugfer Co shows the following:

$$\text{Debt/equity ratio} = \text{long-term debt}/\text{total equity} = 100 \times (100/221) = 45\%$$

$$\text{Debt equity/ratio including short-term borrowings} = 100 \times ((100 + 160)/221) = 118\%$$

The debt/equity ratio based on long-term debt is not particularly high. However, the interest coverage ratio indicated a high level of financial risk and it is clear from the financial position statement that the short-term borrowings of \$160m are greater than the long-term borrowings of \$100m. In fact, short-term borrowings account for 62% of the debt burden of Nugfer Co. If we include the short-term borrowings, the debt/equity ratio increases to 118%, which is certainly high enough to be a cause for concern. The short-term borrowings are also at a higher interest rate (8%) than the long-term borrowings (6%) and as a result, interest on short-term borrowings account for 68% of the finance charges in the income statement.

It should also be noted that the long-term borrowings are bonds that are repayable in 2012. Nugfer Co needs therefore to plan for the redemption and refinancing of \$100m of debt in two years' time, a factor that cannot be ignored when selecting a suitable source of finance to provide the \$200m of cash needed.

#### Recommendation of suitable financing method

There are strong indications that it would be unwise for Nugfer Co to raise the \$200m of cash required by means of debt finance, for example the low interest coverage ratio and the high level of gearing.

If no further debt is raised, the interest coverage ratio would improve after the acquisition due to the increased level of operating profit, i.e.  $(56.7m + 28m)/18.8 = 4.5$  times. Assuming that \$200m of 8% debt is raised, the interest coverage ratio would fall to  $((84.7)/(18.8 + 16)) = 2.4$  times and the debt/equity ratio would increase to  $100 \times (260 + 200)/221 = 208\%$ .

If convertible debt were used, the increase in gearing and the decrease in interest coverage would continue only until conversion occurred, assuming that the company's share price increased sufficiently for conversion to be attractive to bondholders. Once conversion occurred, the debt capacity of the company would increase due both to the liquidation of the convertible debt and to the issuing of new ordinary shares to bond holders. In the period until conversion, however, the financial risk of the company as measured by gearing and interest coverage would remain at a very high level.

If Nugfer Co were able to use equity finance, the interest coverage ratio would increase to 4.5 times and the debt/equity ratio would fall to  $100 \times (260/(221 + 200)) = 62\%$ . Although the debt/equity ratio is still on the high side, this would fall if some of the short-term borrowings were able to be paid off, although the recent financial performance of Nugfer Co indicates that this may not be easy to do. The problem of redeeming the current long-term bonds in two years also remains to be solved.

However, since the company has not paid any dividend for at least four years, it is unlikely that current shareholders would be receptive to a rights issue, unless they were persuaded that dividends would be forthcoming in the near future. Acquisition of the competitor may be the only way of generating the cash flows needed to support dividend payments.

A similar negative view could be taken by new shareholders if Nugfer Co were to seek to raise equity finance via a placing or a public issue.

Sale and leaseback of non-current assets could be considered, although the nature and quality of the non-current assets is not known. The financial position statement indicates that Nugfer Co has \$300m of non-current assets, \$100m of long-term borrowings and \$160m of short-term borrowings. Since its borrowings are likely to be secured on some of the existing non-current assets, there appears to be limited scope for sale and leaseback.

Venture capital could also be considered, but it is unlikely that such finance would be available for an acquisition and no business case has been provided for the proposed acquisition.

While combinations of finance could also be proposed, the overall impression is that Nugfer Co is in poor financial health and, despite its best efforts, it may not be able to raise the \$200m in cash that it needs to acquire its competitor.

- (b) When a new issue of bonds is made by a company, the interest rate on the bonds will be influenced by factors that are specific to the company, and by factors that relate to the economic environment as a whole.

#### **Company-specific factors**

The interest rate charged on a new issue of bonds will depend upon such factors as the risk associated with the company and any security offered.

The risk associated with the company will be assessed by considering the ability of the company to meet interest payments in the future, and hence its future cash flows and profitability, as well as its ability to redeem the bond issue on maturity.

Where an issue of new bonds is backed by security, the interest rate charged on the issue will be lower than for an unsecured bond issue. A bond issue will be secured on specific non-current assets such as land or buildings, and as such is referred to as a fixed-charge security.

#### **Economic environment factors**

As far as the duration of a new issue of bonds is concerned, the term structure of interest rates suggests that short-term debt is usually cheaper than long-term debt, so that the yield curve slopes upwards with increasing term to maturity. The longer the duration of an issue of new bonds, therefore, the higher will be the interest rate charged. The shape of the yield curve, which can be explained by reference to liquidity preference theory, expectations theory and market segmentation theory, will be independent of any specific company.

The rate of interest charged on a new issue of bonds will also depend on the general level of interest rates in the financial system. This is influenced by the general level of economic activity in a given country, such as whether the economy is in recession (when interest rates tend to fall) or experiencing rapid economic growth (when interest rates are rising as capital availability is decreasing). The general level of interest rates is also influenced by monetary policy decisions taken by the government or the central bank. For example, interest rates may be increased in order to exert downward pressure on demand and hence decrease inflationary pressures in an economy.

*Examiner's note: the above answer is longer than would be expected from a candidate under examination conditions.*

- (c) The three forms of capital market efficiency are weak form, semi-strong form and strong form efficiency. The three forms of efficiency can be distinguished by considering the different kinds of information that are reflected in security prices.

#### **Weak form efficiency**

This refers to a situation where securities trading on a capital market (e.g. shares and bonds) are shown to reflect all relevant past information. If a capital market is weak form efficient, it is not possible to predict security prices by studying share price movements in the past. There is no correlation between share price movements in successive periods and, in fact, share prices appear to be following a random walk.

#### **Semi-strong form efficiency**

This refers to a situation where securities trading on a capital market are shown to reflect all past and public information. If a capital market is semi-strong form efficient, it is not possible to make above-average (abnormal) returns by studying information in the public domain (this includes past information), because the prices of securities move quickly and accurately to reflect new information as it becomes available.

#### **Strong form efficiency**

If a capital market is described as strong form efficient, the prices of securities trading on the market reflect all information, whether past, public or private. It is not possible for this form of capital market efficiency to exist in the real world, since it is always possible for an individual with access to relevant information which is not public to benefit from it by buying and selling securities.

**3 (a) Cost of the current ordering policy**

Order size = 10% of 160,000 = 16,000 units per order  
Number of orders per year = 160,000/16,000 = 10 orders per year  
Annual ordering cost = 10 x 400 = \$4,000 per year  
Holding cost ignoring buffer inventory = 5·12 x (16,000/2) = \$40,960 per year  
Holding cost of buffer inventory = 5·12 x 5,000 = \$25,600 per year  
Total cost of current policy = 4,000 + 40,960 + 25,600 = \$70,560 per year

**Cost of the ordering policy using the EOQ model**

Order size =  $(2 \times 400 \times 160,000/5 \cdot 12)^{0.5} = 5,000$  units per order  
Number of orders per year = 160,000/5,000 = 32 orders per year  
Annual ordering cost = 32 x 400 = \$12,800 per year  
Holding cost ignoring buffer inventory = 5·12 x (5,000/2) = \$12,800 per year  
Holding cost of buffer inventory = 5·12 x 5,000 = \$25,600 per year  
Total cost of EOQ policy = 12,800 + 12,800 + 25,600 = \$51,200 per year

**Change in costs of inventory management by using EOQ model**

Decrease in costs = 70,560 – 51,200 = \$19,360

*Examiner's Note*

*Since the buffer inventory is the same in both scenarios, its holding costs do not need to be included in calculating the change in inventory management costs.*

- (b)** Holding costs can be reduced by reducing the level of inventory held by a company. Holding costs can be reduced to a minimum if a company orders supplies only when it needs them, avoiding the need to have any inventory at all of inputs to the production process. This approach to inventory management is called just-in-time (JIT) procurement.

The benefits of a JIT procurement policy include a lower level of investment in working capital, since inventory levels have been minimised: a reduction in inventory holding costs; a reduction in materials handling costs, due to improved materials flow through the production process; an improved relationship with suppliers, since supplier and customer need to work closely together in order to make JIT procurement a success; improved operating efficiency, due to the need to streamline production methods in order to eliminate inventory between different stages of the production process; and lower reworking costs due to the increased emphasis on the quality of supplies, since hold-ups in production must be avoided when inventory between production stages has been eliminated.

**(c) Evaluation of changes in receivables management**

The current level of receivables days =  $(18/87 \cdot 6) \times 365 = 75$  days  
Since 25% of credit customers will take the discount, 75% will not be doing so.  
The revised level of receivables days =  $(0 \cdot 25 \times 30) + (0 \cdot 75 \times 60) = 52 \cdot 5$  days

Current level of trade receivables = \$18m  
Revised level of trade receivables =  $87 \cdot 6 \times (52 \cdot 5/365) = \$12 \cdot 6$ m  
Reduction level of trade receivables =  $18 - 12 \cdot 6 = \$5 \cdot 4$ m

Cost of short-term finance = 5·5%  
Reduction in financing cost =  $5 \cdot 4\text{m} \times 0 \cdot 055 = \$297,000$   
Administration and operating cost savings = \$753,000  
Total benefits =  $297,000 + 753,000 = \$1,050,000$

Cost of early settlement discount =  $87 \cdot 6\text{m} \times 0 \cdot 25 \times 0 \cdot 01 = \$219,000$   
Net benefit of early settlement discount =  $1,050,000 - 219,000 = \$831,000$

The proposed changes in receivables management are therefore financially acceptable, although they depend heavily on the forecast savings in administration and operating costs.

**Maximum early settlement discount**

Comparing the total benefits of \$1,050,000 with 25% of annual credit sales of \$87,600,000, which is \$21,900,000, the maximum early settlement discount that could be offered is 4·8% ( $100 \times (1 \cdot 050/21 \cdot 9)$ ).

- (d)** Factors that should be considered when formulating working capital policy on the management of trade receivables include the following:

**The level of investment in trade receivables**

If the amount of finance tied up in trade receivables is substantial, receivables management policy may be formulated with the intention of reducing the level of investment by tighter control over the way in which credit is granted and improved methods of assessing client creditworthiness.

**The cost of financing trade credit**

If the cost of financing trade credit is high, there will be pressure to reduce the amount of credit offered and to reduce the period for which credit is offered.

**The terms of trade offered by competitors**

In order to compete effectively, a company will need to match the terms offered by its competitors, otherwise customers will migrate to competitors, unless there are other factors that will encourage them to be loyal, such as better quality products or a more valuable after-sales service.

**The level of risk acceptable to the company**

Some companies may feel that more relaxed trade credit terms will increase the volume of business to an extent that compensates for a higher risk of bad debts. The level of risk of bad debts that is acceptable will vary from company to company. Some companies may seek to reduce this risk through a policy of insuring against non-payment by clients.

**The need for liquidity**

Where the need for liquidity is relatively high, a company may choose to accelerate cash inflow from credit customers by using invoice discounting or by factoring.

**The expertise available within the company**

Where expertise in the assessment of creditworthiness and the monitoring of customer accounts is not to a sufficiently high standard, a company may choose to outsource its receivables management to a third party, i.e. a factor.

- 4 (a) Using the dividend growth model, the share price of NN Co will be the present value of its expected future dividends, i.e.  $(66 \times 1.03)/(0.12 - 0.03) = 755$  cents per share or \$7.55 per share

Number of ordinary shares =  $50/0.5 = 100$ m shares

Value of NN Co =  $100\text{m} \times 7.55 = \$755\text{m}$

Net asset value of NN Co = total assets less total liabilities =  $143 - 29 - 20 - 25 = \$69\text{m}$

In calculating net asset value, preference share capital is included with long-term liabilities, as it is considered to be prior charge capital.

- (b) The after-tax cost of debt of NN Co can be found by linear interpolation

The annual after-tax interest payment =  $7 \times (1 - 0.25) = 7 \times 0.75 = \$5.25$  per year

Year	Cash flow (\$)	5% Discount factor	Present value (\$)
0	(103.50)	1.000	(103.50)
1-6	5.25	5.076	26.65
6	100	0.746	74.60
			<u>(2.25)</u>

Year	Cash flow (\$)	4% Discount factor	Present value (\$)
0	(103.50)	1.000	(103.50)
1-6	5.25	5.242	27.52
6	100	0.790	79.00
			<u>3.02</u>

After-tax cost of debt =  $4 + [(1 \times 3.02)/(3.02 + 2.25)] = 4 + 0.57 = 4.6\%$

*Examiner's note: the calculated value of the after-tax cost of debt will be influenced by the choice of discount rates used in the linear interpolation calculation and so other values would also gain credit here.*

- (c) Annual preference dividend =  $8\% \times 50$  cents = 4 cents per share

Cost of preference shares =  $100 \times (4/67) = 6\%$

Number of ordinary shares =  $50/0.5 = 100$ m shares

Market value of equity =  $V_e = 100\text{m shares} \times 8.30 = \$830\text{m}$

Number of preference shares =  $25/0.5 = 50$ m shares

Market value of preference shares =  $V_p = 0.67 \times 50\text{m} = \$33.5\text{m}$

Market value of long-term borrowings =  $V_d = 20 \times 103.50/100 = \$20.7\text{m}$

Total market value of company =  $(V_e + V_d + V_p) = (830 + 33.5 + 20.7) = \$884.2\text{m}$

WACC =  $(k_e V_e + k_p V_p + k_d(1 - T)V_d) / (V_e + V_p + V_d) = (12 \times 830 + 6 \times 33.5 + 4.6 \times 20.7) / 884.2 = 11.6\%$

- (d) A number of factors should be considered in formulating the dividend policy of a stock-exchange listed company, as follows.

**Profitability**

Companies need to remain profitable and dividends are a distribution of after-tax profit. A company cannot consistently pay dividends higher than its profit after tax. A healthy level of retained earnings is needed to finance the continuing business needs of the company.

**Liquidity**

Although a dividend is a distribution of profit, it is a cash payment by the company to its shareholders. A company must therefore ensure it has sufficient cash to pay a proposed dividend and that paying a dividend will not compromise day-to-day cash financing needs.

**Legal and other restrictions**

A dividend can only be paid out in accordance with statutory requirements, such as the requirement in the United Kingdom for dividends to be paid out of accumulated net realised profits. There may also be restrictions on dividend payments imposed by, for example, restrictive covenants in bond issue documents.

**The need for finance**

There is a close relationship between investment, financing and dividend decisions, and the dividend decision must consider the investment plans and financing needs of the company. A large investment programme, for example, will require a large amount of finance, and the need for external finance can be reduced if dividend increases are kept in check. Similarly, the decision to increase dividends may reduce retained earnings to the extent where external finance is needed in order to meet investment needs.

**The level of financial risk**

If financial risk is high, for example due to a high level of gearing arising from a substantial level of debt finance, maintaining a low level of dividend payments can result in a high level of retained earnings, which will reduce gearing by increasing the level of reserves. The cash flow from a higher level of retained earnings can also be used to decrease the amount of debt being carried by a company.

**The signalling effect of dividends**

In a semi-strong form efficient market, information available to directors is more substantial than that available to shareholders, so that information asymmetry exists. This is one of the causes of the agency problem. If dividend decisions convey new information to the market, they can have a signalling effect concerning the current position of the company and its future prospects. The signalling effect also depends on the dividend expectations in the market. A company should therefore consider the likely effect on share prices of the announcement of a proposed dividend.



**Fundamentals Level – Skills Module, Paper F9  
Financial Management**

**December 2010 Marking Scheme**

	<i>Marks</i>	<i>Marks</i>
<b>1 (a)</b> Sales revenue	1	
Selling costs	1	
Variable costs	1	
Capital allowances, years 1 to 3	1	
Capital allowance/balancing allowance, year 4	1	
Tax liabilities	1	
Timing of taxation	1	
Incremental working capital	2	
Discount factors	1	
NPV calculation	1	
Decision as to financial acceptability	<u>1</u>	
		12
<b>(b)</b> Discussion of payback and ROCE	2–3	
Discussion of planning period	1–2	
Discussion of scrap value	1–2	
Discussion of working capital recovery	1–2	
Discussion of balancing allowance	<u>1–2</u>	
	Maximum	7
<b>(c)</b> Ungearing equity beta	1	
Regearing equity beta	1	
Calculating project-specific cost of equity	1	
Explaining stages of calculation	<u>3</u>	
		<u>6</u>
		<b><u>25</u></b>
<b>2 (a)</b> Analysis of recent financial performance	1–3	
Discussion of recent financial performance	1–3	
Analysis of current financial position	1–3	
Discussion of current financial position	1–2	
Consideration of suitable sources of finance	4–6	
Recommendation of suitable source of finance	<u>1</u>	
	Maximum	15
<b>(b)</b> Company-specific factors	2–3	
Economic environment factors	<u>2–3</u>	
	Maximum	4
<b>(c)</b> Weak form efficiency	2	
Semi-strong form efficiency	2	
Strong form efficiency	<u>2</u>	
		<u>6</u>
		<b><u>25</u></b>

	<i>Marks</i>	<i>Marks</i>
<b>3 (a)</b> Current policy:		
Annual ordering cost	1	
Annual holding cost	1	
Total annual cost	1	
EOQ policy:		
Annual order size	1	
Annual ordering cost and holding cost	1	
Change in inventory management cost	<u>1</u>	
		6
<b>(b)</b> Benefits of JIT procurement policy		5
<b>(c)</b> Reduction in trade receivables	2	
Financing cost saving	1	
Cost of early settlement discount	1	
Comment on net benefit	1	
Maximum early settlement discount	<u>1</u>	
		6
<b>(d)</b> Relevant discussion		<u>8</u>
		<b><u>25</u></b>
<b>4 (a)</b> Share price using dividend growth model	2	
Value of company using dividend growth model	1	
Net asset value of company	<u>2</u>	
		5
<b>(b)</b> Correct use of taxation	1	
Calculation of after-tax cost of debt	<u>3</u>	
		4
<b>(c)</b> Cost of preference shares	1	
Market value of equity	1	
Market value of preference shares	1	
Market value of debt	1	
Weighted average cost of capital	<u>2</u>	
		6
<b>(d)</b> Profitability	1–2	
Liquidity	1–2	
Legal and other restrictions	1–2	
The need for finance	1–2	
The level of financial risk	1–2	
The signalling effect of dividends	<u>1–2</u>	
	Maximum	<u>10</u>
		<b><u>25</u></b>