



MARKSCHEME

November 2007

BUSINESS AND MANAGEMENT

Higher Level

Paper 1

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SECTION A

1. (a) **Explain the usefulness to *Gladrags Ltd* of segmenting their market.** [6 marks]

Segmentation is the process of dividing a market into groups or types of customers who share similar characteristics or buying behaviours. Each segment can be seen to have different needs and wants to other segments.

By segmenting their market, *Gladrags Ltd* is able to identify the particular needs and wants of that segment and produce a marketing mix appropriate to that segment. It will also allow them to target that segment cost-effectively and efficiently by the selection of appropriate advertising and distribution channels.

[5 to 6 marks]

A clear explanation, which shows a good understanding of terms and the theory behind segmentation. The answer is applied to the case study.

[3 to 4 marks]

An explanation, which shows some understanding of terms and the theory behind segmentation.

[1 to 2 marks]

A brief, generalized answer.

- (b) **Prepare a suitable marketing mix to support the launch of the “Sassy” brand of designer clothing.** [10 marks]

The “Sassy” brand is aimed at a different market segment to that of the other *Gladrags Ltd* products. The marketing mix is composed of the four elements of product, promotion, price and place, all of which will differ substantially from previous clothing lines.

- **Product:** The new clothes have a more European style, but still incorporate Indian fabrics and design influences. The fabrics will need to be of adequate quality not to affect the image of the brand, but product costs need to be minimized to support pricing strategies. Design must indeed be fashionable and be constantly updated to reflect changing trends in the market place.

- **Promotion:** This will be the crucial element of the mix as *Gladrags Ltd* is targeting a broader range of customers and needs to provide a USP for the “Sassy” brand. The brand needs to be positioned in the customers’ mind as different, rebellious and trendy. The use of celebrity endorsement will be important and the selection of the appropriate celebrity may make or break the brand. Promotion needs to target the youth market and sponsorship of music and films could be one potential avenue. Advertising in media accessed by the youth-market is essential. This will need to be researched carefully as *Gladrags Ltd* has not previously targeted this exact group. It is probably essential that they do not move too far initially from their Indian roots, but rather emphasize the “trendy” aspects of the brand. Display materials will need to reflect the intended image of the new fashion lines. *Gladrags* may promote products through fashion shows.
- **Price:** The “Sassy” brand needs to appeal to younger, fashionable customers. The competition in the market place is fierce and so the approach is to produce competitively priced garments. Research will need to be carried out to establish who the competition is and find suitable price points for items in the “Sassy” brand. If celebrities endorse the products, it may be possible to charge a value-added price to reflect this. Clearly, profit margins need to be established that reflect the financial obligations and objectives of the business. Young customers are relatively price elastic.
- **Place:** At present *Gladrags Ltd* products are sold through the firm’s factory outlet and a chain of London department stores. Anjay has stated an intention to investigate sales into the European Union. This will require knowledge of the market place and a decision as to how this will take place. There are several potential channels. *Gladrags Ltd* could negotiate a similar distribution agreement with a European department store as they presently have in London. They could target smaller fashionable boutiques or sell through their own outlets. They could also examine catalogue opportunities and/or an Internet presence, and the possibility of selling at concerts or film showings. All of these possibilities would involve significant investment and research. A combination of approaches would be a possibility.

[8 to 10 marks]

A suitable and detailed marketing mix to support the launch of the “Sassy” brand of designer clothing is proposed that covers all the elements of the marketing mix and includes direct references to aspects of the case study. This may include a recognition that the launch of the “Sassy” brand might involve new approaches that require research. The answer includes relevant marketing terminology.

[5 to 7 marks]

A suitable marketing mix to support the launch of the “Sassy” brand of designer clothing is proposed that covers all the elements of the marketing mix and includes some reference to the case study for **[7 marks]**. The answer may become increasingly generalized, unbalanced and descriptive towards the bottom of the band and may not include all aspects of the marketing mix.

[3 to 4 marks]

Some marketing approaches are suggested, but these may not examine all aspects of the marketing mix and may be rather generalized, descriptive and like a list.

[1 to 2 marks]

A poor answer, which covers few aspects of the marketing mix and may be little more than a list of unconnected suggestions, with little or no reference to the case study.

2. (a) **“There is a formal organizational structure at *Gladrags Ltd* with a tall hierarchy and a narrow span of control” (lines 98-99).**

Analyse the advantages and disadvantages to *Gladrags Ltd* of this type of organizational structure.

[8 marks]

A formal organizational structure is best suited to a role culture. Tasks are well defined and there are clear lines of communication, chains of command, responsibility and accountability. Communication tends to be formal and the system is often bureaucratic with many rules and regulations.

A tall hierarchy is often a characteristic of a formal organization. There are many levels of authority and narrow spans of control.

Advantages:

- managers are able to keep a tight control over employees and maintain rigorous quality standards. Henri Fayol felt that the span of control should never exceed five, reducing the chances of mistakes
- where staff are new, managers are able to provide support and advice especially now that turnover at *Gladrags Ltd* is increasing
- where activities are straightforward and routine, a formal structure may be appropriate as output can be easily measured, checked and standardized
- there are clear lines of accountability
- narrower spans of control may allow managers to concentrate on core aspects of their job
- formal structures will promote more centralized decision-making.

Disadvantages:

- the taller the hierarchy, the greater the risks of poor communication and distortion of facts. It is already evident that informal communication is rife, e.g. gossip about downsizing and outsourcing
- the taller the hierarchy the more remote employees may feel remote from the organization and its decision making. This may have an adverse effect on motivation. Labour turnover may increase and productivity may fall, as is the present situation in *Gladrags Ltd*
- wide spans of control allow employees greater freedom and job enrichment and may empower them to achieve, improving motivation. If *Gladrags Ltd* wants to introduce TQM and JIT systems, managers will have to delegate more and adjust leadership styles. A formal hierarchy and narrow span of control will not be suitable
- less flexibility and slower decision making.

[6 to 8 marks]

A detailed and balanced analysis of the advantages and disadvantages of *Gladrags Ltd's* formal organizational structure and tall hierarchy, which is related directly to the case study.

[3 to 5 marks]

Some assessment of *Gladrags Ltd's* formal organizational structure and tall hierarchy, which may not be balanced. The issues are related to the case study at the top end of the band. A maximum of **[4 marks]** is available if the answer only covers advantages **or** disadvantages.

[1 to 2 marks]

An essentially descriptive answer or a list without any analysis.

- (b) Explain the benefits to *Gladrags Ltd* of “introducing more flexible working practices” (*line 119*).

[4 marks]

“Flexible working practices” refer to the ways businesses change the working environment to improve the way they operate through increasing motivation and productivity. This could include flexible shift and working patterns (*e.g.* flexitime), team working, homeworking and job rotation.

In the case of *Gladrags Ltd*, flexible working may reduce the numbers of employment agency staff required in production, by having existing staff with a range of skills that can be used to fill in for absent colleagues or to provide a pool of staff who can operate a range of machinery. When staff are under-utilized they can be re-assigned to other tasks. Team working may provide cover for missing staff, which will require increased training. These flexible practices will ensure that the amount of overtime is minimized.

[3 to 4 marks]

An explanation, which shows understanding of the term “flexible working practices” and the associated benefits. For [4 marks] the answer must refer to *Gladrags Ltd*.

[1 to 2 marks]

A limited explanation of the term “flexible working practices”, which may lack detail or clarity. There may be limited reference to associated benefits.

3. (a) **Compare and contrast *batch production* and *mass production*.** [8 marks]

Batch production: involves items being manufactured in groups moving through the production process together. They undergo one operation together before being moved on to the next operation. The production area is often organized by grouping together similar machines and processes such as welding and assembly.

Batch production does not involve a continuous production process. The characteristics are similar to job production, requiring some flexibility in operations with a workforce, which is likely to be semi-skilled and machinery that is flexible enough to meet a variety of demands. There will be “downtime” between batches. Demand levels are usually insufficient to justify mass production. Some economies of scale can be experienced, but they may not be significant. Examples include bakery products, clothing manufacture and some building construction.

Mass production: involves the output of identical, standardized products using continuous production with highly specialized inputs, each being employed continually on the same operation. Marketing support is essential as mass production relies on high and long-term levels of demand. Mass production usually leads to lower unit costs as the result of various economies of scale such as purchasing, technical and managerial.

The extra production reduces the amount of flexibility required, both for capital and labour. Production is based on specialization and the division of labour. The low levels of skill required and the repetitive nature of the task often leads to boredom and low morale among the workforce.

The greater automation of production processes such as CAD/CAM in recent years has allowed for more flexibility and has reduced the requirement for high levels of unskilled labour. In some ways mass production can now satisfy the needs, which required batch production – greater flexibility and less standardization of output. Examples include the production of cars and high demand food products such as milk and cereals.

[6 to 8 marks]

The concepts of batch production and mass production are fully explained using appropriate terminology, such as economies of scale and specialization. Examples may be used to develop explanation. The two types of production are compared and contrasted with a balance of similarities and differences explained at the upper end of the mark band.

[3 to 5 marks]

The concepts of batch production and mass production are explained, although this may be rudimentary or inaccurate in places, especially at the lower end of the band. There is an attempt to distinguish between the two types at the upper end of the band, but the answer becomes more descriptive at the lower end.

[1 to 2 marks]

An essentially descriptive answer or a list without any comparisons.

- (b) **Analyse the advantages *and* disadvantages to *Gladrags Ltd* of introducing just-in-time (JIT) stock control.** [10 marks]

With just-in-time stock control, no buffer stocks are held and production is to order. There is no safety net if more stock is required urgently. JIT is normally introduced as part of lean production.

Advantages of *Gladrags Ltd* introducing just-in-time stock control:

- minimizes stock holding costs, *e.g.* warehousing, insurance and administration
- capital is not tied up for long periods in stock – creates improved cash flows
- focus is on quality and zero defects
- encourages greater empowerment and delegation, which may improve motivation
- products are made to order reducing possible obsolete stock, which is particularly relevant to the fashion industry.

Disadvantages of *Gladrags Ltd* introducing just-in-time stock control:

- higher costs if they lose some economies of scale for bulk buying – they presently buy stock on a yearly basis to maximize discounts
- the firm becomes more vulnerable to problems with supply or breakdowns on the part of their suppliers
- they would become more reliant on a high quality supply chain and distribution mechanism for getting hold of supplies of goods – this may raise cost
- may cause problems at certain times of year when demand is particularly high
- possible problems with customer satisfaction if deliveries are delayed
- *Gladrags Ltd* may need to build much closer relationships with their suppliers and this may take some time before it happens
- different leadership styles may have to be adopted with less formal structures – this may require time and training.

[8 to 10 marks]

Full and detailed analysis of advantages and disadvantages, which are related to *Gladrags Ltd*. The analysis may be unbalanced at the bottom end of the band.

[5 to 7 marks]

An analysis of advantages and disadvantages, though these may not be related directly to the case study. Towards the bottom of the band the response tends to description, or may lack some accuracy.

[3 to 4 marks]

A description of a few possible advantages and/or disadvantages. The issues may tend to be a little tenuous in their connection to the case study.

[1 to 2 marks]

A limited and essentially descriptive answer.

4. Discuss the *four* strategic options for the future direction of *Gladrags Ltd* (lines 151-157). Use the PEST analysis (Appendix 2) and other information provided in the case study to support your answer.

[14 marks]

The options under consideration by *Gladrags Ltd* are to:

- sell the entire business as a going concern to the Indian multinational corporation
- sell the UK production facilities to the property developer and sell the *Gladrags* brand name
- sell the UK production facilities to the property developer and outsource production to Vietnam and Bangladesh
- develop the existing business by refocusing their product range on younger people and target higher socio-economic groups who are less price-sensitive, starting with the “Sassy” product range.

The key information from the PEST related to the available options includes:

- an increasingly competitive market as imports from China are no longer subject to quotas under the multi-fibre agreement
- a reduction in regulations affecting the production of clothing
- economic growth in the UK is expected to fall, but a recovery in European growth is expected during 2006-2008
- increasing shortages in skilled labour in the clothing industry
- pressure to cut corporation taxes to encourage new investment
- interest rates are expected to rise to combat inflationary pressures
- incomes are rising as is the proportion of income spent on clothing
- branded clothing tends to be relatively price inelastic and income elastic
- the population in the UK and Europe is ageing. Sales are increasing to over 55s
- growth of affluent immigrant populations with increasing demand among the Indian population in the UK
- demand is increasing among younger age groups in eastern Europe
- production automation in the clothing industry is increasing and costs are falling. Although China remains labour-intensive, automation is increasing there too
- CAD/CAM systems are reducing production overheads.

Additional information:

- increasing numbers of business closures in the East End of London
- the Mile End area is becoming run down with increasing crime levels and other social problems
- the holding of the Olympic Games in 2012 is likely to lead to redevelopment in the area
- Naseem and Saswati are strongly in favour of developing the existing business. They hold a 45 % shareholding between them
- Tom and Anjay support the sale of the production facilities and outsourcing production. They hold a 35 % shareholding between them
- Tom’s children are in favour of selling the entire business to the Indian multinational corporation or selling the production facilities and brand name. They hold a 20 % shareholding between them
- the financial position of *Gladrags Ltd* is under scrutiny with a low rate of growth, falling margins and increasing short-term borrowing. Costs are rising
- motivation is falling and so is productivity. There is a shortage of skilled machinists and recruitment is difficult
- there is conflict between management and production staff.

Continuing as they are is not an option for *Gladrags Ltd* given their declining profitability and worrying financial situation. Competition is only likely to increase, particularly from China, and profit margins will be cut further as a result. Either production needs to be outsourced, to reduce overheads and to overcome the issue of skills shortages in the UK, or the company needs to reposition its products to make them less price elastic and to take advantage of increasing affluence among the immigrant Indian population. It could be argued that some of the options could be combined. For example, the production could be outsourced, the product mix refocused on younger people and higher socio-economic groups who are less price-sensitive, starting with the “Sassy” brand product range targeted. Falling economic growth in the UK may make this option untenable, unless exporting to the European Union compensates for falling UK demand.

Since Naseem and Saswati hold the largest shareholding, their desire to develop the business may prevail. However, they do not have a majority shareholding and if Tom, Anjay and Tom’s children combine their votes they could push through the sale of the production facilities and outsource production, or even push through the sale of the entire business. Increasing conflict with the workforce, and declining productivity and skills shortages makes outsourcing more likely.

The poor financial situation of the business, or greed by Tom’s children, may force its sale to the Indian multinational corporation. However, if finance could be found, investment in automation could allow *Gladrags Ltd* to compete. However, increasing interest rates may make this option expensive, unless reduced corporation tax makes investment financially rewarding.

N.B. It is not expected that a candidate’s answer will contain the same depth and breadth as shown in this markscheme.

[11 to 14 marks]

A full and balanced discussion of the four strategic options available to *Gladrags Ltd.* At the upper end of the band the discussion must be substantially based on the facts in the case and draws on PEST factors and/or other information from the case.

[7 to 10 marks]

A reasonable discussion of the strategic options available to *Gladrags Ltd.* There may be a lack of balance and/or one or two options may not be adequately covered. There is some reference to the facts of the case although these become increasingly limited at the bottom of the band. There is a limited use of PEST factors and/or other information from the case.

[4 to 6 marks]

Some assessment of the strategic options, but these may be limited, descriptive and unbalanced. There are references to the case study at the top of the band although these may be tenuous or generalized. There is little or no reference to PEST factors.

[1 to 3 marks]

An essentially descriptive answer or a list of issues without structure and/or assessment. There is no reference to PEST factors.

SECTION B

- 5. (a) (i) Using a suitable example, explain what is meant by a *negative variance*. [3 marks]**

A variance is the difference between the planned (budgeted) and actual level of costs or sales. A negative variance occurs when the actual level of sales is below the budgeted level, or where the costs are greater than the budgeted level. In the case of *Gladrags Ltd*, the board of directors were concerned that wage and administration costs were too high and sales were too low.

[2 to 3 marks]

There is clarity in the explanation, which includes reference to planned and actual levels of costs and sales and defines a negative variance. For **[3 marks]** the answer includes a numerical or non-numerical example.

[1 mark]

The answer attempts to explain the concept of a variance in relation to costs or sales, although the answer may be brief, or the candidate gets the variance the wrong way around.

- (ii) **Examine *one* advantage and *one* disadvantage for *Gladrags Ltd* of preparing budgets.**

[6 marks]

A budget is a plan of the relevant costs and revenues in order to achieve the objectives of an organization in the coming financial year. Most businesses prepare a budget to include all their activities, based on a predicted level of sales. There are both advantages and disadvantages of the use of budgets.

Advantages:

- they are a basis for control and clearly lay out objectives related to the budget
- provide a basis for measuring success or failure with the use of variance analysis – the management can see if targets are being adhered to and take corrective action if they are not
- they encourage co-ordination and communication between departments
- they ensure that the financial implications of business activities are fully considered
- they provide a simple tool for all employees and provide an incentive for action, especially if there are financial rewards linked to the attainment of financial targets
- they provide an opportunity for “management by exception” – allowing management to concentrate on core business issues and to take action only when significant variances occur.

Disadvantages:

- there are dangers if budgets are too inflexible and may be adhered to, regardless of changes in circumstances
- preparing budgets may be costly and time-consuming
- failure to meet budget requirements may be a de-motivator to staff, especially if the failure is outside of their control. Linking incentives to rigid budgets may be counter-productive
- setting realistic budgets may be difficult in dynamic markets. Recent business theorists have argued that rigid budgets in these circumstances are a waste of time and resources
- budgets are only as good as the data used to prepare them. If sales revenues are unpredictable, for example, then the preparation of budgets related to these may be worthless
- budgets may be related more to power and status, than to the requirements of the business. Departments may inflate budgets to ensure that their position in the business is enhanced.

In the case of *Gladrags Ltd*, if they had drawn up appropriate budgets and maintained strict control of these, it may have prevented the significant variances in sales levels and wage and administration costs.

[5 to 6 marks]

A clear and detailed examination of one advantage and one disadvantage of preparing budgets for all departments and activities of *Gladrags Ltd.* For **[6 marks]** the answer refers to the case study.

[3 to 4 marks]

Some examination of one advantage and one disadvantage of preparing budgets for all departments and activities of *Gladrags Ltd.* For **[3 marks]** the answer may be unbalanced and/or may not refer to *Gladrags Ltd.*

[1 to 2 marks]

A limited and/or generalized response or there may be reference to only one advantage or one disadvantage, but not both.

- (b) (i) **Identify *three* appropriate measures *Gladrags Ltd* could take to improve its cash flow.**

[3 marks]

Gladrags Ltd could improve its cash flow in a number of ways including:

- reducing stock levels *e.g.* a sale, or ordering less. Using just-in-time methods of stock control
- collect from debtors earlier by lowering the debtor period allowed or by offering discounts for early payment of invoices
- factoring – here all the debts (as shown in the debtor’s book) are sold to another company – a factoring company
- persuading its creditors to extend the credit period
- selling fixed assets *e.g.* unused offices or buildings, machinery or even subsidiary companies
- sale and leaseback – here a company sells property like its head office, but then leases it back on a long-term period lease
- finding alternative sources of cash, *e.g.* forming a partnership or joint venture or negotiating an overdraft.

Award **[1 mark]** for each appropriate method identified, up to a maximum of **[3 marks]**.

- (ii) **Discuss whether the objectives and targets set by *Hansons* are achievable. Use ratio analysis and other financial and non-financial information provided in the case study to support your answer.** **[8 marks]**

Included in *Hansons'* plan were the following financial objectives and targets:

- improving gross profit margin by examining supplier costs
- taking emergency measures to address cash flow issues
- improve profitability performance to match industry averages of 30 % gross profit margin and 12 % net profit margin
- increasing investment in new production and communication technologies.

Ratios and financial information for 2004 and 2006

	2004	2006
Sales revenue	\$2.59m	\$2.65m – up 2.3 %
Current ratio	1.76	1.64
Acid test ratio	1.05	0.725
ROCE	21.74 %	12.62 %
Gross profit margin	24.7 %	21.7 %
Net profit margin	11.6 %	7.55 %
Rate of stock turnover	4.1 times	3.77 times
Gearing ratio	33.7 %	37.5 %

- **Improving gross profit margin** by examining supplier costs – this approach could be quite feasible. Gross profit margin has fallen from 24.7 % to 21.7 % in two years indicating that *Gladrags Ltd* has higher cost of sales. The market for clothing materials is very competitive and *Gladrags Ltd* should be able to find cheaper suppliers overseas.
- **Taking emergency measures** to address cash flow issues – again this is achievable if *Gladrags Ltd* takes control of its stock situation. The current ratio of 1.64 in 2006, although slightly down from 2004, is still acceptable. However, the acid test of 0.725 indicates *Gladrags Ltd* has a severe cash flow crisis and will be unable to meet its liabilities unless action is taken. The issue is how easy it will be to reduce stock levels. Clothing is seasonal and styles may not be fashionable. Selling obsolete stock may be nearly impossible.

- **Improve profitability performance to match industry averages** of 30 % for gross profit margin and 12 % for net profit margin. At present gross profit margin is 21.7 % and net profit margin is 7.55 % . Both of these have fallen significantly since 2004, showing that cost of sales has risen (or/and prices have fallen) and overheads are increasing. Pressure on existing suppliers or finding new cheaper suppliers may address cost of sales, but competition may force *Gladrags Ltd* to keep prices low unless more “up-market” styles, which are less price sensitive are introduced. Overhead control may be improved by better budgeting and variance analysis.

The ROCE ratio indicates that *Gladrags Ltd* is not using its productive capacity as effectively as in 2004. As sales revenue is increasing, control of costs may go some way towards improving the situation. However, to turn around the business and reach industry averages is a tall order, particularly in the short-term.

- **Increasing investment in new production and communication technologies.** This will require significant financial commitment at a time when profits are falling and short-term liquidity is a problem. However, company gearing at 37.5 % , although having increased slightly over 2004, is still low. There is potential for borrowing to increase to fund new investment into modern production equipment. The suggestion that government may reduce corporation tax to stimulate investment is encouraging. The production investment may not arise if *Gladrags Ltd* decides to outsource.

[6 to 8 marks]

There is a clear understanding of the present financial position of *Gladrags Ltd* and a range of financial information is used including at least 3 ratios. Additional information from the case study is selected to support the discussion and for **[8 marks]** judgments are reached as to whether the objectives and targets set by *Hansons* are achievable.

[3 to 5 marks]

There is some understanding of the present financial position of *Gladrags Ltd* and some financial information is used including at least two ratios for **[4 to 5 marks]**. Some additional information from the case study is selected to support the discussion. At the upper end of the band, opinions may be offered, although they may not be substantiated.

[1 to 2 marks]

There is some attempt to examine the financial situation of *Gladrags Ltd*, but ratios may be limited in number or even missing. The answer is very generalized and limited, tending to unconnected statements or lists.

6. (a) Explain *two* purposes of a business plan.**[4 marks]**

A business plan is a statement that outlines the way that the business will achieve its objectives. An established business may produce a business plan to show how it will obtain the funds to pay back a loan for new investment or growth.

For a business starting up it is vital as it can be used to:

- provide a clear idea of direction and operation
- show a bank or financial investor an ability to pay back a loan
- identify problems that may occur to deal with them before they become a problem
- highlight its strengths and weaknesses.

Award **[1 mark]** for each purpose identified up to a maximum of **[2 marks]** and an additional **[1 mark]** for an explanation of each purpose identified up to a maximum of **[4 marks]**.

(b) Examine *one* advantage and *one* disadvantage of introducing Total Quality Management (TQM) systems at *Gladrags Ltd.***[6 marks]**

TQM is a culture of quality throughout the organization from directors to line operatives. Quality is made the number one, non-negotiable priority. TQM is part of lean production. It commits the organization to continuous improvement (Kaizen) of all activities relating to the quality of the product and the satisfaction of the customer. TQM is really a culture; as to be effective it requires a change in attitudes. It requires thorough management training, funding, communication and commitment of all within the organization to succeed.

Advantages may include:

- improved quality and production processes leading to zero defects
- increased productivity
- increased market share
- competitive advantage, by focusing on customer needs
- better use of employee potential
- a motivated workforce and a team approach to improvement and problem solving
- increased profits
- reduced waste.

The adoption of TQM can be a great help to a company in focusing on quality and the needs of the customer, but there can be a number of problems with its adoption.

Disadvantages may include:

- **Lack of commitment from staff** – this could be a lack of commitment from management or from production staff. If it is not adopted enthusiastically throughout the company, it will not work.
- **Cost** – TQM will require a significant investment – sometimes in new capital equipment, but also investment in training and development of staff. These extra costs may only yield improvements in the medium to long-term and so management needs to maintain the level of commitment even if short-term improvements do not arise.
- **Bureaucracy** – TQM may require close monitoring and the collection of large amounts of data to ensure quality at all stages and levels and this will impose additional bureaucracy and therefore cost on the firm.
- **Training and development** – because TQM requires total commitment at all levels of the firm, there will be a need for significant levels of training and development. This may cause some production co-ordination problems and impose an additional cost burden.

Quality is an issue at *Gladrags Ltd* with 7% of all products rejected, increasing production costs. However, given the present situation at *Gladrags Ltd* it is not clear that staff will accept this additional responsibility. The adoption of TQM could be seen as a management attempt to impose change and merely a “fad”.

[5 to 6 marks]

A clear and detailed examination of one advantage and one disadvantage of introducing TQM at *Gladrags Ltd*. The answer refers to the case study.

[3 to 4 marks]

Some examination of an advantage and a disadvantage of introducing TQM at *Gladrags Ltd*. For **[3 marks]** there may be omissions such as no reference to *Gladrags Ltd*. Award a maximum of **[3 marks]** for a detailed examination of just an advantage or just a disadvantage.

[1 to 2 marks]

A limited and/or generalized response. There may be reference to only one advantage or disadvantage, but not both.

- (c) Calculate the payback period and net present values of Package A and Package B. Calculations should be made to 2 decimal places, based on the discount factors given below.

Year 1	0.962
Year 2	0.925
Year 3	0.889
Year 4	0.855
Year 5	0.822

Using these calculations and other financial and non-financial information, discuss the merits of the two packages.

[10 marks]

	Package A	Package B
	\$000	\$000
Payback		
Cost	280	480
Cumulative return		
Year 1	140	120
2	250	240
3	350	400
4	390	580
5	420	710
	$\frac{30}{100} \times 365$ = 110 days (3.6 months) Accept rounding	$\frac{80}{180} \times 365$ = 162 days (5.3 months) Accept rounding
	<u>2 yrs 110 days</u>	<u>3 years 162 days</u>
DCF/NPV		
Year 1	$140 \times 0.962 = 134.68$	$120 \times 0.962 = 115.44$
2	$110 \times 0.925 = 101.75$	$120 \times 0.925 = 111.00$
3	$100 \times 0.889 = 88.90$	$160 \times 0.889 = 142.24$
4	$40 \times 0.855 = 34.20$	$180 \times 0.855 = 153.90$
5	$30 \times 0.822 = 24.66$	$130 \times 0.822 = 106.86$
Total	384.19	629.44
Less cost	<u>280.00</u>	<u>480.00</u>
NPV	104.19	149.44

Package A pays back more quickly than Package B – in fact over one year sooner. If a firm has cash flow problems this may be crucial. At present *Gladrags Ltd* has a current ratio of 1.64 and an acid test ratio of 0.725. This indicates that *Gladrags Ltd* has a liquidity problem, because it is holding a lot of stock and is potentially insolvent. An investment that pays back more quickly may be vital.

The net present value for package B is \$149 440 which is \$45 250 higher than package A over five years. However, the timing of inflows for the packages is noticeably different. Package A returns most in the earlier years, whereas Package B does not return its maximum return of \$180 000 until year four. There is more risk estimating returns in later years as there is a greater risk of error and external factors may affect estimates.

It is said in the stimulus that Package B has some advantages in terms of flexibility. It can also be upgraded more easily and has more features.

Certainly, Package B has the potential to return more over five years and has more features and flexibility. However, the initial cost of Package B is \$200 000 greater than Package A and *Gladrags Ltd* may find difficulty raising the additional finance. This will affect their gearing ratio. The cash flow situation at *Gladrags Ltd* may dictate that Package A is selected.

[8 to 10 marks]

There is a clear understanding of the two appraisal methods. For **[10 marks]** calculations are correct and clearly laid out and the financial and non-financial merits of the two packages are fully discussed.

[4 to 7 marks]

There may be several errors and/or omissions in calculation, but the layout shows an understanding of the main principles of the two methods. The financial and/or non-financial merits of the packages are discussed although this becomes increasingly limited and unsupported at the bottom end of the band.

[1 to 3 marks]

There is some attempt to apply aspects of investment appraisal, but there are many errors and/or omissions and the methods are not well understood. The merits of the packages may be expressed in the simplest of ways.

Award **[4 marks max]** if only the payback and NPV have been calculated, or if calculations have been omitted completely.
