



MARKSCHEME

May 2005

BUSINESS AND MANAGEMENT

Higher Level

Paper 1

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SECTION A

1. (a) Explain *three* benefits for *Gadgets2u.com* of adopting a matrix structure (*line 25*). **[6 marks]**

Benefits may include

- more flexible organization of staff – essential for a small growing firm
- faster decision-making
- improved motivation of staff – enables job rotation and job enrichment
- greater efficiency/productivity – stemming from increased flexibility and improved motivation
- greater involvement in decision-making from all staff – should enable a range of perspectives to be taken into account with decisions
- flat hierarchy and matrix structure means improved communication
- enables expertise to be used where it is most effective and the bringing in of outside expertise enables teamwork
- *any other relevant point.*

[5 to 6 marks]

Three benefits fully and accurately explained. Benefits are clearly related to and derived from the case study.

[3 to 4 marks]

Two or three benefits are partially explained. Explanations may lack detail or not be entirely related to the case study.

[1 to 2 marks]

One or two relevant benefits perhaps listed or not adequately explained or not fully related to the case study.

- (b) (i) **Some communication problems have started to emerge at *Gadgets2u.com*. Identify reasons why these problems have occurred.** **[3 marks]**

Problems with communication at *Gadgets2u.com* have started to arise. The most obvious example of this was delays to distribution caused by an upgrade of the e-commerce system. Problems appear to have been caused by

- rapid growth – staffing levels perhaps not keeping up with the workload
- time pressure on existing staff – management of people’s workloads may not have been adequate and communication may have suffered
- no formal method of communication between project teams – though there are regular “special days”, these seem to have been taken over with tactical rather than strategic decision-making
- information/communication overload – all information is available to all staff through the Intranet and this may lead to information overload.
- *any other relevant point.*

Award **[1 mark]** for each relevant reason.

- (ii) **Examine possible strategies to overcome the problems identified in (b)(i).**

[5 marks]

Strategies for addressing the problems may include:

- use management by objectives – this would make objectives clearer and perhaps enable clearer communication.
- set up further formal communication systems – regular meetings of project teams or related groups.
- limit information dissemination – make information available only to those who need it through technology. Helps avoid information overload.
- further empowerment of project teams – this may help ensure teams take responsibility for all their activities.
- hire more staff to ease time pressure.
- introduction of an appraisal system to formalise communication.
- create a new project team to examine communication problems.
- make hierarchy taller to reduce span of control.
- *any other relevant point.*

[3 to 5 marks]

A number of relevant strategies examined and accurately related to the case study where relevant.

[1 to 2 marks]

A relatively simplistic answer examining one or two strategies or simply listing them.

2. (a) **Explain the possible effects on *Gadgets2u.com* of the forecast European Union growth figures given in *Appendix 1*.** [4 marks]

The growth figures show a significant slowdown in growth in 2005 (though still positive growth) picking up in 2006 and restored to trend growth rates in 2007. Some possible effects may be:

- staffing levels – they may not need to recruit as widely and might they want to introduce more flexible working patterns to keep staffing costs down
- stock – given the costs of holding stock they may want to consider developing new stock control methods or perhaps holding lower average levels of stock
- financial – the slowdown in sales growth may put pressure on their margins and so their financial performance may not be as good as previously. Servicing debt may prove more problematic with a relatively poorer level of sales growth
- sales – the income elastic nature of demand of *Gadget2u.com*'s product range and their price-skimming approach may lead to a fall in the relative growth rate of sales
- *any other relevant point.*

[3 to 4 marks]

A clear explanation of the impact of the forecast growth figures related closely to the nature of the product range of the firm and raising some possible effects this may have on the firm.

[1 to 2 marks]

The impact of the forecasts is explained but the explanation may be lacking in detail and the answer may not fully consider the effects of the change in growth on the firm.

- (b) **Evaluate how each element of the marketing mix could be adapted to reduce the seasonal nature of *Gadgets2u.com*'s sales.** [12 marks]

Price – moving away from the price-skimming approach for some product lines and perhaps even adopting a penetration pricing approach may help to create a more consistent pattern of sales, though this will have the disadvantage of lowering margins and requiring greater volume growth to maintain total profit. However, this may help cash flow and therefore reduce short-term borrowing costs. *Gadgets2u.com* could use this approach for certain key products (or known-price items) to create more consistent sales levels.

Product – a change in the product range could help create seasonal demand for products related to particular times of the year. Products of this nature could just be offered at certain times on special offers (perhaps use a penetration pricing approach). However, this may raise the cost of managing the product lines and create further excess stocks with all their associated costs. Products could perhaps be offered that are related to particular events – films *etc.* though these may also prove expensive to manage.

Promotion – special promotions could be offered at certain times of year (linked in with changes in the price and product elements). These could be targeted at their core customers who could be rewarded with loyalty type offers and promotions. However, these may be expensive and the costs and benefits of promotions would need to be carefully monitored. Promotions could be targeted at specific groups – perhaps demographic groups.

Place – perhaps the most difficult element of the marketing mix to change to reduce seasonality, but *Gadgets2u.com* could perhaps use certain key web sites that are related to particular events or have different seasonal patterns to try to distribute through. Joint ventures with these sites may offer wider and less seasonal distribution patterns.

Expansion into the retail sector may help boost sales in low season.

Candidates who evaluate other elements of the marketing mix (people, process, physical evidence and packaging) should also be rewarded appropriately though these other P's are not expected.

[10 to 12 marks]

A clear and thorough evaluation of four or more elements of the marketing mix (as above) with detailed reference to the case study material. Significant reference to other relevant concepts and areas of the firm's activities where relevant.

[7 to 9 marks]

Sound examination of at least three elements of the marketing mix (as above) with reference to the case study material. Some use of other relevant concepts and areas of the firm's activities where relevant.

[4 to 6 marks]

Some (though perhaps limited) examination of at least two elements of the marketing mix (as above). At the lower end of the band the answer may be essentially limited and descriptive. At the lower end of the band the answer may be essentially limited and descriptive. Some reference to the case study and other concepts but these may be limited and descriptive.

[1 to 3 marks]

Limited and probably essentially descriptive answer with some mention of at least one element of the marketing mix or more elements with points listed and not evaluated.

3. The gross and net profit margins for *Gadgets2u.com* are given in the table below.

	2003	2004
Gross profit margin (%)	30.95	34.84
Net profit margin (%)	4.96	13.64

(a) (i) What are the formulae used to calculate the gross and net profit margins? *[2 marks]*

$$\text{Gross profit margin} = \text{Gross profit} / \text{total sales revenue} \times 100$$

$$\text{Net profit margin} = \text{Net profit} / \text{total sales revenue} \times 100$$

[1 mark] for each correct formula.

(ii) Discuss the factors that could have led to the changes shown in the values of these ratios. *[6 marks]*

Both profit margins have improved, indicating an improvement in performance of *Gadgets2u.com*. This has been caused by both cost of goods sold and overheads falling as a proportion of turnover. This may have been caused by

- better prices negotiated with suppliers as sales have grown enabling them to cut the cost of goods sold (purchasing economies of scale)
- overheads being spread over a greater level of sales, hence reducing the unit cost
- improved systems being developed to help improve productivity and therefore lower costs
- *any other relevant point.*

However, the net margin has improved by considerably more than the gross margin and this may indicate:

- overheads being spread over a higher level of turnover. Overheads associated with the new e-commerce system may have stayed fairly steady as the system has spare capacity for growth. This would help reduce overheads per unit
- the case study mentions higher staff workloads and this may reduce sales and admin overheads per unit
- the growth in sales has not been accompanied by an increase in space used for admin and sales or stock storage and so they may have been able to spread these overheads over a higher level of sales, reducing overhead cost per unit
- *any other relevant point.*

[5 to 6 marks]

A balanced and detailed discussion of the reasons for the changes in the values of the gross and net profit margins. The answer refers to *Gadgets2u.com* and their situation and shows a clear understanding of the difference between gross and net profit margins.

[3 to 4 marks]

Some discussion of the changes in the values of the gross and net profit margins, though at the lower end of the band the difference between the margins may not be clear.

[1 to 2 marks]

A limited and general response that may refer more to changes in profitability generally than specifically to the gross and net profit margins.

(b) (i) What is the difference between a cost and profit centre? [3 marks]

A profit centre is a division, or part of a company that generates profit and where costs and revenues can be clearly isolated and recorded. Thus the profit it generates can also be determined. Cost centre is similar and generates costs but does not make a profit – costs can be isolated and recorded.

[3 marks]

A clear and accurate explanation of cost and profit centres with the difference accurately defined.

[2 marks]

A good explanation of cost and profit centres with some indication of the difference though this may not be fully clear.

[1 mark]

Some definition of cost and/or profit centres through the difference between them may not be explained.

(ii) Analyse the advantages and disadvantages of running the new warehouse as a cost centre. [9 marks]

Some advantages and disadvantages of running the new warehouse as a cost centre could include

Advantages

- enables closer and tighter cost control – by splitting the firm into smaller units costs can be more easily identified, though can all costs be allocated appropriately
- helps give incentives for managers to manage costs – a smaller cost unit can help motivate managers to control costs as they are easier to identify – may also help create a team spirit in the centre and motivate and empower staff to manage costs more closely
- helps with decision-making in the firm – identification of costs will help *Gadgets2u.com* to assess better the success of the new distribution centre. Given that distribution is a key element of their success, this may be valuable information

- given some spare capacity initially they may be able to take on some other work sub-contracted from other firms – by keeping cost information separately, it will be easier to price this work and assess whether it is profitable to take on
- the warehouse is in a separate location and this should make it easier to separate costs and build a team approach at the centre. Making it a cost centre as well should support this
- allows the firm to monitor how costs change as they grow rapidly and ensure that costs do not grow faster than sales – indeed enables them to check for economies of scale
- Tom fears a loss of control by the senior management team
- *any other relevant point.*

Disadvantages

- collecting and separating cost information may increase the level of bureaucracy and therefore raise administration costs
- given that *Gadgets2u.com* is already a small team, will collecting cost information on one part be of any value
- could perhaps put manager of the warehouse under too much pressure to cut costs and therefore mean that corners are cut and customer service suffers
- given that the distribution is closely linked with the web site and the e-commerce system it may be difficult to separate and allocate costs appropriately
- given that distribution is a large proportion of their activity, the information collected may be of less value than looking at the firm as a whole
- *any other relevant point.*

[7 to 9 marks]

Several advantages and disadvantages are identified and thoroughly analysed. The answer is balanced in its approach. Advantages and disadvantages and analysis are all closely related to the case study material where relevant.

[4 to 6 marks]

Some advantages and disadvantages are identified and there is some attempt at analysis though there may not be a balance between advantages and disadvantages particularly at the lower end of the band. Some reference is made to the case study material.

[1 to 3 marks]

A few advantages and/or disadvantages are identified or perhaps listed though these may be essentially descriptive in nature and not necessarily related to the case study material.

4. Discuss the costs and benefits for *Gadgets2u.com* of adopting a more ethical approach to the sourcing of its products. **[10 marks]**

Gadgets2u.com have found that one of their key suppliers has been dumping phones that do not meet European technical standards in other countries. There is some disagreement within the company about whether they should continue to use this supplier. Discussion of the costs and benefits of a more ethical approach could include:

- dropping the supplier completely for ethical reasons could disproportionately affect their product range. The case points out that this is one of their “key” suppliers
- the target audience for *Gadgets2u.com* is essentially a young one and spread through Spain and the rest of Europe – how ethically aware and sensitive are they?
- will adopting ethical standards have any significant marketing impact? This may depend on the ethical sensitivity of their target market. Will it be something that they can use as part of the marketing mix or is it not important enough to their target audience? They may need to commission market research
- how important are ethical issues to the various stakeholders of the firm? Might the adoption of an ethical stance help motivate staff? How important are these issues to the venture capital firm – are they more likely to be concerned about profit and not ethical issues? Therefore might the adoption of ethical standards lead to stakeholder conflict? How important are these issues to the main shareholders and managers – Tom and Sam?
- might an ethical stance mean that they have to treat other suppliers similarly and lead to an even greater reduction in their product range?
- how much information will they actually be able to get on any ethical issues arising from their supply chain and therefore could taking a public stance on this open them up for further criticism?
- less attention from pressure groups and the media and a more favourable response from government
- *any other relevant discussion point.*

[8 to 10 marks]

A full, thorough and balanced discussion of the issues relating to adopting a more ethical stance. The discussion refers closely to the case study where relevant and uses subject concepts and theories extensively and appropriately.

[4 to 7 marks]

A reasonable discussion of the issues though it may not be completely balanced in approach. The discussion refers generally to the case study though may be more descriptive at the lower end of the range. There is some reference to subject concepts and theories though this may be limited at the bottom end of the range. At the lower end of the band the ethical issues raised may be more general and not specifically related to suppliers and the sourcing of products.

[1 to 3 marks]

Some issues relating to an ethical stance are raised but these may be limited and essentially descriptive in nature or perhaps listed. There is little or no reference to the case study material.

SECTION B

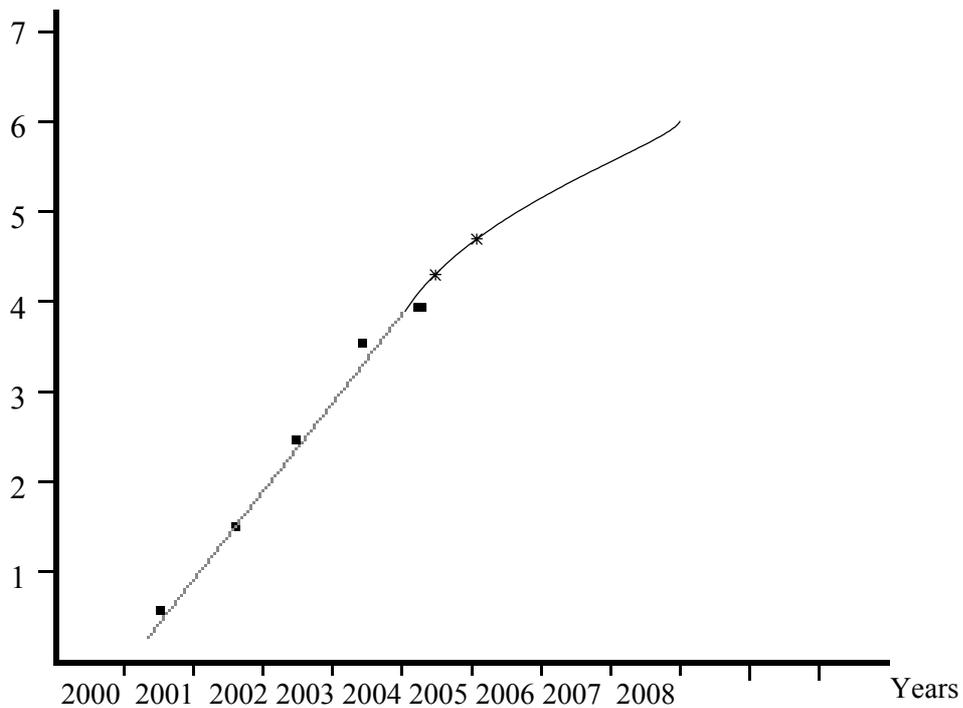
5. (a) Using the sales performance and forecasts in *Appendix 2*, prepare a three year moving average. Plot the moving averages as a graph and extrapolate the trend of sales to 2008.

[4 marks]

Year	Sales/forecast sales	$\Sigma 3$	Moving average
2000	80 000		
2001	450 000	1 790 000	596 667
2002	1 260 000	4 350 000	1 450 000
2003	2 640 000	7 690 000	2 563 333
2004	3 790 000	10 790 000	3 596 667
2005	4 360 000	12 730 000	4 243 334
2006	4 580 000	13 970 000	4 656 667
2007	5 030 000		

Gadgets2u.com – sales forecasts

Sales (millions)



[4 marks]

Completely accurate calculations and clear and fully labelled graph showing trend line.

[3 marks]

Calculations essentially accurate with one or two minor errors. Graph is labelled, consistent with calculations and shows trend line.

[2 marks]

Some errors in calculations though the method adopted appears to be consistent and shows evidence of being appropriate. Graph is consistent with calculations but may be missing labels or trend line. The calculations may be mainly accurate, but no graph has been drawn.

[1 mark]

Some attempt at calculation and/or a graph consistent with these calculations.

Please note that candidates should not be rewarded for simply plotting the sales forecasts given in *Appendix 1*.

- (b) (i) Calculate the total contribution that each of the products shown in the table above makes to overheads.**

[3 marks]

Product	Mobile Phones	Digital cameras	Handheld computers	Music players	Computer accessories	
Sales	2 750	700	850	1 500	2 500	
Price (Euro)	95	220	180	125	60	
Variable cost (Euro)	60	195	170	105	30	
Contribution per unit (Euro)	35	25	10	20	30	Total contribution all products
Total contribution (Euro)	96 250	17 500	8 500	30 000	75 000	227 250

[3 marks]

Complete and accurate calculation of contribution per unit and total contribution showing clearly how the total contribution was arrived at for each product.

[2 marks]

Calculation of contribution per unit and total contribution is complete and almost totally accurate with perhaps one or two minor errors. Method of calculation is correct, though may not be clearly presented.

[1 mark]

Some attempt at calculation though there may be a number of errors or contribution per unit may have been calculated rather than total contribution.

- (ii) **The board of directors has decided that it may not be worth the shops stocking handheld computers. Assess this decision.** [5 marks]

Contribution from the handheld computers is the lowest from all the products at only 10 Euro per unit and so could be argued not to be contributing sufficient to overheads to be worthwhile stocking. A number of arguments could be raised to assess this approach:

- to what extent are the handheld computers complementary to the rest of the product range and despite the low contribution, could they still be worthwhile stocking?
- contribution may be low, but it is still positive and therefore helping to contribute to overheads?
- the products may sell much better than forecast and therefore still provide a good total contribution. If they do sell well might it be possible to gain buying economies of scale and therefore increase the contribution? Could the suppliers be approached and persuaded to offer a better price?
- are there constraints on space within the shops and is it therefore worth stocking a product with a lower contribution?
- are there other possible products/product ranges that may have higher contribution?
- *any other relevant point.*

[4 to 5 marks]

A full and detailed assessment of a reasonable number of arguments. The arguments are related closely to the case study where relevant.

[2 to 3 marks]

Some assessment of at least two arguments. The arguments may be related to the case study, though perhaps less so at the bottom end of the mark range.

[1 mark]

A limited and essentially descriptive answer that raises one or more arguments, though these may be limited in scope or perhaps listed.

- (c) **Using all the information above and from the case study evaluate the arguments for and against the diversification into retail operations that Sam is proposing.**

[8 marks]

A move into retail operations has been planned and there is some disagreement among the various stakeholders about whether this diversification should take place. There are a number of arguments for and against the move and these need to be evaluated. Arguments could include:

- diversification will help create further growth for the company and spread risk across a greater range of operations. This may also help reduce the seasonal nature of the business, though this may be dependent on the product range carried and how similar it is to the web site
- the diversification may help them to build the *Gadgets2u.com* brand name and increase consumer awareness
- diversification may increase financial risk. The company has only recently moved into profit and to invest a lot of time, effort and money may mean a financial risk
- short-term borrowing is also high and so if the retail operation means higher levels of stock, this may put financial pressure on the firm through servicing this debt. Long-term borrowing will also be higher
- they may lose focus on their core business if they diversify at an early stage of growth
- if there is disagreement among the stakeholders, will there be full commitment to the diversification
- what are the staffing implications of the diversification - how many new staff will be needed and how much staff time required from the existing workforce? Given that they are over-stretched simply managing the growth of the e-commerce business, will they be able to cope? Do they have the required skills already available for a retail expansion (this may require very different skills to the e-commerce operation)
- have they done all the market research required? Is it a different target market required for the retail operation and if so how will they adapt the marketing mix
- from the contribution figures, they only appear to earn revenue of 47 250 Euro in excess of the overheads. Is the operation really likely to be profitable? If it is loss-making has the firm got the financial resources to cope with this?

[6 to 8 marks]

A detailed, thorough and balanced evaluation of the arguments relating to the proposed diversification. Arguments are closely related to the case study where relevant and reference is made to subject theories and concepts where appropriate.

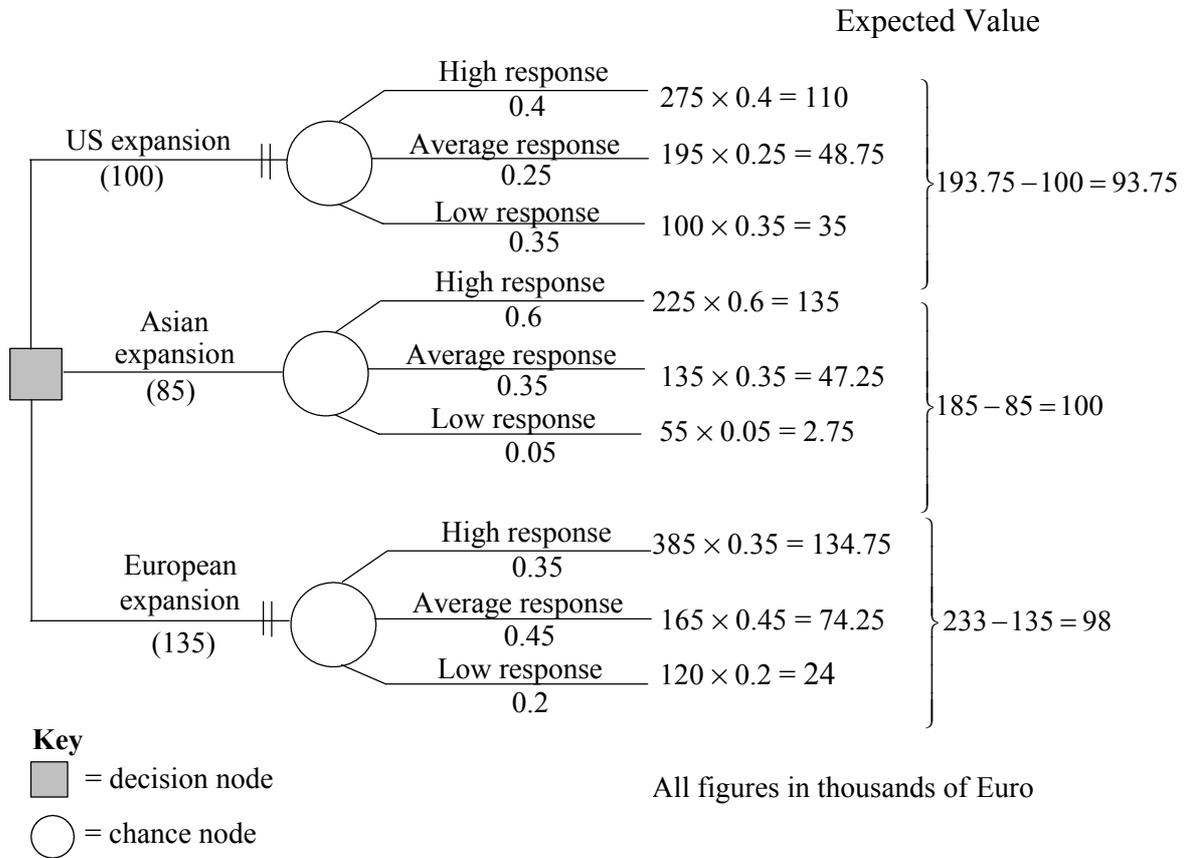
[3 to 5 marks]

A reasonable examination of the arguments though this may lack detail and perhaps some balance towards the lower end of the mark range. Arguments are related to the case study though may tend to be more general at the lower end of the range.

[1 to 2 marks]

A limited and essentially descriptive answer with some arguments raised though they may perhaps be listed and unrelated to the case study.

6. (a) Construct a decision tree showing which project is best on financial grounds. Show all working, with an appropriate key. [6 marks]



[6 marks]

Fully labelled, complete and accurate decision tree with a key and showing workings required to calculate expected values. Clear identification of Asian expansion as the best option.

[4 to 5 marks]

Complete decision tree but perhaps missing a key or with one or two minor errors in calculation. For **[5 marks]** candidates must have identified Asian expansion as the best option on financial grounds.

[1 to 3 marks]

The framework of a decision tree with some attempt at the calculation of the expected values, though these may be incomplete or inaccurate towards the bottom end of the range.

- (b) **Assess additional non-financial factors that the board of directors should take into account when deciding on which project to implement.**

[6 marks]

Decision tree analysis can be an excellent framework for decision-making, but it only considers the quantitative elements of the decision. To help them make the decision, the firm will also need to consider qualitative aspects of the decision. These may include:

- the accuracy of the estimates in different regions – to what extent do they allow for possible reactions to the expansion? Are they based on clear and thorough market research directly related to the *Gadgets2u.com* product range?
- will the firm need to change their product range to reflect regional consumer demand and might this impose additional costs?
- what are the staffing implications of the decision – might there be a need for additional staffing levels or might some of the projects require more core staff to be involved?
- are any of the projects more complementary to existing business areas than others? If so might this help enable smoother expansion? For example, can marketing be combined better with existing marketing for one of the projects as against another?
- what is likely to be the impact of each of the projects in terms of the firm's corporate culture – might European expansion be more complementary and ensure they stay focused on their core business?
- what are the language and cultural issues resulting from the expansion?
- *any other relevant point.*

[4 to 6 marks]

A full and thorough assessment of the non-financial factors relating to the decision. Arguments are closely related to the case study where relevant and reference is made to subject theories and concepts where appropriate.

[1 to 3 marks]

Some reasonable assessment of the non-financial factors relating to the decision though this may be descriptive in nature at the bottom end of the range or perhaps simply listed.

- (c) **Evaluate the impact that this expansion may have on the financial statements (balance sheet and profit and loss account) of *Gadgets2u.com*.** **[8 marks]**

The proposed expansion strategies cost between 85 000 and 135 000 Euro and so are likely to have a significant impact on the finances of the firm. This impact may include:

N.B. As part of their evaluation candidates may refer to ratios (as below) but this is not required.

- to fund the expansion the firm is likely to have to borrow. The gearing ratio is already quite high and extra borrowing of this nature is likely to leave the gearing dangerously high. This will also raise the level of interest charges (the cost of servicing the debt) and leave the firm vulnerable to changes in interest rates and exchange rates
- the extra borrowing will raise the level of capital employed and whether the ROCE improves will depend on how profitable the expansion is. It is likely that this will initially fall as profitability may be lower in the short-term than the medium term
- expansion is likely to require higher levels of stock to be held, raising current assets. (This will raise the current ratio, though the acid test ratio will be unaffected as stock is excluded.) The extent of the changes to net current assets will depend on the growth on current liabilities. These are likely also to increase with expansion and higher levels of purchases from suppliers
- on the profit and loss account – expansion may improve the level of profit, though margins are not likely to be affected significantly. Margins may improve slightly if the firm is able to spread the overheads over a greater level of turnover, but this depends if the expansion increases overheads. Interest charges are likely to rise and this may reduce profit before tax
- *any other relevant point.*

[6 to 8 marks]

A detailed, thorough and balanced evaluation of the impact on the financial statements relating to the proposed expansion. Issues are closely related to the case study where relevant and reference is made to subject theories and concepts where appropriate.

[3 to 5 marks]

A reasonable discussion of the financial issues though this may lack detail and perhaps some balance towards the lower end of the mark range. Issues are related to the case study though may tend to be more general at the lower end of the range.

[1 to 2 marks]

A limited and essentially descriptive answer with some issues raised though they may perhaps be listed and unrelated to the case study.
