

# Mark Scheme June 2007

Results Mark  
Scheme

GCE Business Studies (6124)

6124 June 2007 Mark Scheme

1.

- (a) Using the information on page 2 and any calculations you make for Project 2, evaluate the proposed investment in Project 2, on the basis of net present value (discounted cash flow) and ONE other investment appraisal method.

Valid calculations could include:

Year	Cash flows (£)	Discount Factor 10%	Present Values
0	(400 000)	1.000	(400 000)
1	80 000	0.909	72 720
2	100 000	0.826	82 600
3	100 000	0.751	75 100
4	120 000	0.683	81 960
5	240 000	0.621	149 040
		<b>Total PV</b>	<b>461 420</b>
		<b>NPV</b>	<b>+ 61 420</b>

Valid points could include:

- The positive NPV suggests Apex Ltd should go ahead with project 2 (apply OFR) £9480 more than Project 1
- With NPV, the directors will need to consider both the accuracy of the forecasted inflows and other factors, including non-financial
- Will the current production equipment allow them to increase capacity?
- Will they be able to remain competitive if they do not invest in new technology?

Valid calculations could include:

- Payback is 4 years ( $8+10+10+12 = 40$ )
- ARR
- Total net profit = Total return - cost i.e.  
 $£640\,000 - £400\,000 = £240\,000$
- Net profit per annum = total net profit/ number of years project runs i.e.  
 $£240\,000/5 = £48\,000$
- $ARR(\%) = \frac{\text{Net Return (profit) per annum}}{\text{Capital outlay (cost)}} \times 100$   
i.e.  $£48\,000/£400\,000 \times 100$   
 $= 12\%$

Valid points could include:

- Payback shows the company has to wait 3 years to recoup its investment for project 1 and 4 years for project 2
- ARR suggest that the both investments should be profitable, but obviously project 2 has the better rate of return
- Time is an important issue, project 2 we know the main inflows are in the latter years. This then assumes income earned in five year's time is the same as income earned in one year's time. Applied to payback and APR.
- Accept mention of job losses
- Reliability and accuracy of data

*A level 4 candidate will calculate accurately, and interpret the results obtained appropriately for NPV and ONE other method. Both calculations necessary to obtain higher range level 4 marks. Valid conclusions will be based on the limitations of the selected methods and the nature of the results obtained .....*

*eg NPV is . . . given the length of time it may take to recover the investment, and the fact that these forecasts are more likely to be inaccurate and given the highly competitive nature of the industry.*

*A level 3 candidate will calculate and interpret the results obtained appropriately for NPV and ONE other method. Both calculations necessary to obtain higher range of level 3 marks. Candidates may not establish a balanced argument concerning the use of these techniques in this situation.*

*eg The time period may have an impact on the chosen project, as project 2 has its greatest cash inflow in year 5, but we do not know how the cash flows for project 1 are spread out.*

Level 4: Candidate evaluates NPV and ONE other method concerning the accuracy of the forecast and provides a valid conclusion / recommendation. Evaluates, if part accurate calculations limit to 18.	15-20 marks
Level 3: Candidate analyses NPV and ONE other method, in the context of calculations made, but may provide a one sided answer. Max 13 marks if based on inaccurate calculations)	9-14 marks
Level 2: Candidate applies knowledge of NPV and/or ONE other method Eg calculates figures. (Full accuracy 7-8 marks, part accuracy 5-6 marks)	5-8 marks
Level 1: Candidate shows some knowledge of NPV and/or ONE other method.	1-4 marks
<b>NB If NPV only then restricted to lowest mark of level 3 or level 4.</b>	<b>Total 20 marks</b>

**Quality of Written Communication:**

Quality of written communication will be assessed in question 1a. The assessment will take place by means of the following criteria:

**Level 4**

Candidate expresses complex ideas extremely clearly and fluently. Answers are very well structured. Arguments are consistently relevant and well developed. There are few, if any, errors in spelling, punctuation and grammar.

**4 marks**

**Level 3**

Candidate expresses moderately complex ideas and answers are well structured. Arguments are generally relevant and developed. There are few, if any, errors in grammar, punctuation and spelling.

**3 marks**

**Level 2**

Candidate expresses straightforward ideas clearly, but not always fluently. Answers are not well structured and arguments maybe weakly presented. There may be some error in grammar, punctuation and spelling.

**2 marks**

**Level 1**

Candidate expresses simple ideas clearly, but may be confused or imprecise in the expression of ideas. There may be noticeable errors in spelling, grammar and punctuation.

**0-1 mark**

**TOTAL 4 MARKS**

- (b) Using appropriate ratios and any other relevant information, assess the ability of Apex Ltd to finance the loan.

Valid calculations could include:

Interest Cover

$$\frac{\text{PBIT } 1\,200}{(\text{Interest}) 200} = 6 \text{ times}$$

Debtor days

$$\frac{\text{Debtors } 1\,700}{\text{Turnover } 10\,000} \times 365 = 62 \text{ days}$$

Creditor days

$$\frac{\text{Creditors } 500}{\text{Cost of sales } 6000} \times 365 = 30 \text{ days}$$

NP Margin

$$\frac{1200}{10\,000} \times 100 = 12\%$$

Gross profit margin

$$\frac{\text{GP } 4\,000}{\text{Turnover } 10\,000} \times 100 = 40\%$$

Gearing 15%

Valid points could include:

- Interest cover is high, suggesting a loan for £400 000 could be taken out without any problems in meeting interest payments
- 62 days credit is being allowed to debtors whereas only 30 days credit is being received from creditors. This suggests that Apex needs to review its credit control procedures, in view of the large loan they are to take out
- Have made a large profit therefore why borrow when in strong financial position
- Low gearing therefore taking out a loan should not be an issue
- In addition to interest payments, the loan itself has to be repaid and we are not told over what period
- The opportunity cost of taking out the loan needs to be considered, what else could this money be used for?
- Are they only considering one source of finance eg, could they use some of retained profit, lease or hire the machinery or equipment at a lower cost?
- No comparisons available with previous years can only calculate limited number of ratios, does not give a complete picture

*A level 4 candidate for the higher range marks must calculate, interpret and evaluate at least 2 appropriate ratios drawing particular attention to the limited information available to make a judgement.*

*e.g. Calculations show that there would appear to be sufficient profit to meet extra interest payments. However Apex will need to consider the amount of time they allow for its customers to make payments and perhaps negotiate a longer period in which to pay its debts. Further information should be gathered on alternative sources of funding and any financial trends.*

*A level 3 candidate for the higher range marks must calculate, interpret and analyse at least 2 appropriate ratios accurately but their answers may fail to demonstrate an awareness of alternative strategies or issues Apex need to consider.*

*eg It would appear that there is sufficient profit to meet the extra interest payments, but as the information on the proposed investment projects is based on forecasts there is no guarantee of a profitable investment and making loan repayments may prove difficult.*

Level 4: Candidate assesses the ability of Apex to finance the loan	15-20 marks
and provides a valid conclusion (part accurate max 18)	9-14 marks
Level 3: Candidate analyses ratios and other relevant information,	
but may provide a one sided answer.	5-8 marks
(Max 13 marks if based on inaccurate calculations).	
Level 2: Candidate applies knowledge of appropriate ratios or relevant information eg calculates ratios	1-4 marks
Level 1: Candidate shows some knowledge of appropriate ratios or other relevant information.	

**NB If only one ratio plus relevant information discussed award lowest mark at level 3 and level 4.**

**Total 20 marks**

2.  
(a)

Assess how the management of Apex Ltd might respond to the concerns being raised by the trade unions.

Valid points could include:

- Management's role is to manage the business in order to allow it to achieve its objectives
- They need to ensure that there is sufficient funding available for them to achieve objectives and remain competitive within its market
- Management is responsible for ensuring that the production process allows it to meet deadlines
- Management must be aware of the need to reach agreement, it may be that the threat to staff is not that great, that they are considering retraining or involving current workforce in developing new product range
- Apex Ltd needs to consider the extent to which they can press the case for cost cutting measures in the face of union opposition; there is a need to remain flexible in its response
- Management will need to respond or review its position both in the short and long term and judge its options
- Options might include expanding current range of products, entering new markets, retraining, alternative working methods
- Important for all concerned that Apex is able to survive

*A level 4 candidate will assess the situation commenting on both sides point of view to achieve higher range marks.*

*eg Demonstrating that management are endeavouring to find ways to keep the company competitive and maintain its order books, this will require what may appear drastic measures laying off staff. However, the alternative may be that if they change nothing, the factory fails to compete and goes out of business with the loss of all jobs.*

*A level 3 candidate will analyse the situation commenting on both sides point of view to achieve higher range marks.*

*eg May state that the union may have assumed that all jobs will be lost. However, it is quite possible that some of the workforce could be re-trained and others may find work on the proposed new range of kitchen furniture.*

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|---|-------------|
| Level 4: Candidate assesses how the management of Apex Ltd might respond to the concerns being raised by the trade unions and provides a valid conclusion.    | 11-16 marks |
| Level 3: Candidate analyses how the management of Apex Ltd might respond to the concerns being raised by the trade unions but may provide a one sided answer. | 7-10 marks  |
| Level 2: Candidate applies knowledge of how the management of Apex Ltd might respond to the concerns being raised by the trade unions.                        | 4-6 marks   |
| Level 1: Candidate shows some knowledge of trade unions or management responsibility.   | 1-3 marks   |

**Total 16 marks**

- (b) **Analyse the impact of computer-aided design (CAD) on the design process of Apex Ltd's products.**

Valid points could include:

- design changes to furniture can be made quickly and more cheaply allowing more variety and flexibility to product designs
- can produce kitchen designs or furniture designs to order more easily and therefore attract customers through custom made products
- reduces lead times which will give Apex a **competitive edge**
- system breakdowns may cause problems through delay and lost orders of furniture
- training requirements, initial introduction may require employees to be trained on new equipment
- reduction in manpower, concerns may be raised over threat to jobs.

*A level 3 candidate will consider the impact of the use of CAD explaining that for Apex Ltd it could possibly aid them in producing its plans for introducing a new range of furniture.*

*eg Allowing kitchen designs to be drawn and re-drawn until they meet customer satisfaction. However, heavy dependence on this type of system may falter if the system breaks down or limited employees are trained to use the equipment.*

Level 3: Candidate analyses the use of CAD in context of Apex Ltd. **5-8 marks**  
Level 2: Candidate applies knowledge of CAD in context of Apex Ltd. **3-4 marks**  
Level 1: Candidate shows some knowledge of CAD. **1-2 marks**

**Total 8 marks**

- (c) **Evaluate the importance of new product development to Apex Ltd.**

Valid points could include:

- The stages of NPD include ideas development, ideas analysis, development of product, test marketing, evaluation of results, launch and re-evaluation
- It would appear that the industry is very competitive from the context, so it would seem that NPD is necessary in order to remain competitive
- Have they considered moving into the European market, it already buys some of its raw materials from there, or is this market saturated?
- Appears to be finance available for new product development as they currently just produce bedroom furniture (context) is this a time to consider producing the new range of furniture
- Although NPD is important in business environment it is equally important for a firm to consider marketing issues, stage in product life cycle and the mix of products on offer
- Apex would also need to consider the impact of NPD on other business functions i.e. the funding required, the training required and the current resources available



*A level 4 candidate will analyse how NPD can assist decision making and also evaluate how NPD may be affected by other constraints.*

*eg NPD is important because it would enable Apex to maintain a competitive edge...However, the main benefit may be in producing a kitchen range that meets customer requirements through research, test marketing and evaluation.*

*A level 3 candidate will analyse how NPD can assist decision making.*

*eg If Apex were considering entering a new market and developing a new furniture range the cost of this would be a major consideration. However, they would also need to consider whether they have sufficient or the correct type of machinery to carry this through and also the staff capable of doing the work.*

Level 4: Candidate evaluates NPD in context of Apex and provides a valid conclusion. 11-16 marks

Level 3: Candidate analyses NPD in context of Apex, but may provide a one sided answer. 7-10 marks

Level 2: Candidate applies knowledge of NPD in context of Apex. 4-6 marks

Level 1: Candidate shows some knowledge of NPD. 1-3 marks

Total 16  
marks

Total for Paper 80 marks plus 4 marks for Quality of Written Communication