

ACCA FINAL ASSESSMENT

Advanced Performance Management

December 2011

Time allowed Reading time: **15 minutes** Writing time: **3 hours**

This paper is divided into two sections

Section A BOTH questions are compulsory and **MUST** be answered

Section B TWO questions **ONLY** to be answered

Do not open this paper until instructed by the supervisor

This question paper must not be removed from the examination hall

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Paper P5

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SECTION A

BOTH questions are compulsory and MUST be answered

QUESTION 1 – PK LTD

Introduction

PK Ltd is jointly owned by two United Kingdom based conglomerates which manufacture mainly electrical products. In its own right, PK Ltd is regarded as a world leader in the installation and maintenance of railway transport signalling systems. The company is based in Europe, where most of its manufacturing units are located, but it has established other plants and marketing facilities in the USA, Latin America, Asia and Australia.

Activities of the company

The company specialises in the supply of railway signalling and control systems and employs over 15,000 staff worldwide. In addition to these systems PK Ltd also supplies advanced electronic equipment for safety signalling applications, which can be added to systems that have already been installed. Passenger information systems are also manufactured and supplied by the company, which uses advanced technology to provide full displays on railway platforms and stations.

Over the last decade PK Ltd has experienced increasing competition within its European and North American markets.

Recent international activities

In addition to carrying out major signalling work for the Channel Tunnel rail link between the United Kingdom and mainland Europe, PK Ltd has recently equipped a high-speed rail line in Asia with electronic equipment. Within Europe, the company succeeded in winning the tender to build, equip, operate and maintain a rail link between a major Scandinavian city and its airport.

Research and development

The Chief Executive of PK Ltd has stated that the market-oriented approach of the company requires that it should maintain and develop its position as leader in 'state of the art' technology. This is facilitated by a large established Research and Development unit, which aims to improve product reliability and develop advanced computer software solutions in its business activities, all at lower cost, without compromising quality.

The reduction of life cycle costs and environmental damage, whilst at the same time pursuing technical developments, have been stated by the Chief Executive as key objectives of the company.

Financial position of PK Ltd

The latest Report and Accounting Statements declared that the financial year just ended produced results which were 'disappointing'. The Chief Executive indicated that the company had experienced difficult trading conditions and encountered strengthening international competition. Whilst turnover increased, operating profit after tax and overall orders were lower than the previous year. At the year-end, the number of orders in the order book was 8% below the level achieved at the previous year-end.

A bridged comparative accounting information for last and the previous financial year is as follows:

	<i>Last year</i>	<i>Previous year</i>
	£000	£000
Value of orders	3,750	4,600
Turnover	4,400	3,900
Operating profit after taxation	310	320
Shareholders' equity	935	850

PK Ltd had achieved on average a 20% growth in turnover and a 10% increase in operating profit after taxation over the preceding five-year period until the last financial year. The Chairman of one of the parent holding companies has expressed his concern regarding PK Ltd's results in the last financial year. In response, the Chief Executive of PK Ltd has outlined his company's strategy of international acquisition and joint ventures as a means of returning to sustained growth and profitability.

Proposed acquisition

A number of acquisitions and joint venture arrangements outside Europe are planned. In particular, the acquisition of a small South African electronics component manufacturer (RA Ltd) is being actively pursued. If acquired, RA Ltd will provide the basis for PK Ltd to increase its range of products in what is considered to be an expanding market with high growth potential.

The acquisition would enable advantage to be taken of the opportunities for development in South Africa. In addition, RA Ltd would provide a base for further market penetration of other African countries. RA Ltd is unquoted and owned by a diverse group of shareholders, with family interests in the company controlling 40% of the voting shares.

PK Ltd considers that RA Ltd is under-capitalised. It is currently achieving a 2% return on turnover after interest and tax despite working at full capacity. RA Ltd employs 2,000 people, who possess mixed abilities and skills. Mostly, however, the employees are unskilled or at best very poorly trained. As much as 25% of RA Ltd's products are returned by customers because of faults, and this proportion has steadily increased over recent years.

The directors of PK Ltd are mindful that the South African currency (the Rand) is continuing to depreciate in value compared with the English currency (Pound Sterling). The Rand has continually fallen in value compared with the pound over a long period and currently stands at an exchange rate of 7.6 Rand to £1, whereas a year ago the exchange rate was 6 Rand to £1.

Required:

- (a) **Explain the difficulties with which the parent companies may be confronted in assessing PK Ltd's performance.** (7 marks)
- (b) **Recommend and justify what financial and non-financial measures may be applied to assess the performance of PK Ltd.** (8 marks)
- (c) **Discuss the strategic objectives and market opportunities available to PK Ltd which will be created by its acquisition of RA Ltd.** (10 marks)

(Total: 25 marks)

QUESTION 2

Assume that the date is 1 December 20X3.

The Grove is a privately owned Company. It operates 14 luxury day spas and boutique hotels throughout the country. Each of the buildings is in a sensitively converted space such as a Georgian townhouse or a converted brewery. The company promises an experience that 'is out of this world and will melt your cares away'. The Grove is open for 365 days in the year.

The Day Spas

The day spas are open to adults only. There are three types of spa guest:

- Type 1 = non members – these spa guests are not staying at the hotel. They use the spa facilities irregularly or only once.
- Type 2 = members – these spa guests are not staying at the hotel but have been awarded membership of the day spa due to their regular use of the spa facilities.
- Type 3 = hotel guests – these spa guests are those guests staying at the hotel who also wish to use the spa facilities.

Each day spent by a guest at the spa is called a 'Guest Day'. During the year ending 30 November 20X3 a total of 204,400 guests visited The Grove but this number is expected to increase by 10% in the forthcoming year.

40% of the guests were type 1, 20% type 2 and the remaining 40% type 3 guests. Management expect the guest mix to remain the same in the forthcoming year.

Guests can either purchase a 'One-day Guest Pass' (this allows them to use all facilities for one day and to enjoy two treatments) or a 'Two-day Guest Pass' (this allows them to use all facilities for two days and to enjoy four treatments). During the year ending 30 November 20X3, 70% of guests purchased a One-day Guest pass and the remaining 30% purchased a Two-Day Guest Pass. Management expect this mix to remain the same in the forthcoming year.

The prices were as follows:

	<i>One-Day Guest Pass</i>	<i>Two-Day Guest Pass</i>
Type 1 guest	\$220	\$352
Type 2 guest	\$190	\$304
Type 3 guest	\$150	\$240

All operating costs incurred during the year ending 30 November 20X3 are expected to inflate by 5%. This has led to a decision by management to increase the selling prices of its guest passes by 5% with effect from 1 December 20X3.

Operating costs for the y/e 30/11/X3 were as follows:

	\$	<i>Variable costs (%)</i>	<i>Fixed cost (%)</i>
Salary costs	15,432,333	100	–
Cleaning	4,576,742	25	75
Catering	5,774,394	80	20
Other operating costs	8,744,952	40	60

Variable costs vary according to the number of guest days.

Hotels

There are 200 rooms in total and the charge per room for the year ending 30 November 20X3 was \$200 per night. Average occupancy for the year was 60% and this is expected to remain the same for the year ending 30 November 20X4.

Total operating costs for the year ending 30 November 20X3 were \$6,061,464. Operating costs and room prices will increase by 4% in the forthcoming year.

Required:

- (a) Prepare a statement showing the budgeted net profit or loss for the year to 30 November 20X4. (7 marks)
- (b) The management accountant of the Grove has prepared the two-way data table shown in Appendix 1. Discuss how the directors could make use of such a table. (4 marks)
- (c) (i) Another organisation has announced its intention to open a number of day spas and hotels. The management of the Grove are uncertain of the impact that this will have on the number of visitors to its spas and hotels during the y/e 30/11/X4. Current estimates of the number of guests to the spa facilities and the average % occupancy of the hotels are as follows:

Day Spas		Hotels	
<i>Guest Days</i>	<i>Probability</i>	<i>Occupancy %</i>	<i>Probability</i>
Increase by 20%	0.20	75%	0.10
Increase by 10%	0.60	60%	0.60
Decrease by 5%	0.20	45%	0.30

Using Appendix 1 on the next page, prepare a summary which shows the range of possible net profit or loss outcomes, and the combined probability of each outcome. The table should also show the expected value of net profit or loss for the year. (6 marks)

- (ii) Comment briefly on the use of expected values by management. (2 marks)
- (d) Discuss FOUR performance measurement criteria that management could utilise in order to assess the quality of service provided by the hotels. Indicate what would be measured and state the mechanisms which would enable measurement of the chosen criteria. (4 marks)
- (e) Name and comment on the actions that could be taken by management in the short-term, in an attempt to ensure that the profitability of the Grove is not affected by the opening of a number of day spas and hotels by another organisation. (4 marks)
- (f) Explain the term 'strategic management accounting' and discuss the benefits that might accrue to the Grove as a result of its introduction by management. (8 marks)

(Total: 35 marks)

(Total Section A: 60 marks)

Appendix 1 – The Grove

Two-way data table monitoring net profit in the year 30 November 20X4 for a range of spa facility guest levels and hotel occupancy

	% change in guest days (using 20X3 as base)										
	-15%	-10%	-5%	No change	+5%	+10%	+15%	+20%	+25%	+30%	
	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
75	4,803,730	7,453,312	10,102,894	12,752,476	15,402,058	18,051,640	20,701,222	23,350,804	26,000,386	28,649,968	
70	4,044,530	6,694,112	9,343,694	11,993,276	14,642,858	17,292,440	19,942,022	22,591,604	25,241,186	27,890,768	
65	3,285,330	5,934,912	8,584,494	11,234,076	13,883,658	16,533,240	19,182,822	21,832,404	24,481,986	27,131,568	
60	2,526,130	5,175,712	7,825,294	10,474,876	13,124,458	15,774,040	18,423,622	21,073,204	23,722,786	26,372,368	
55	1,766,930	4,416,512	7,066,094	9,715,676	12,365,258	15,014,840	17,664,422	20,314,004	22,963,586	25,613,168	
50	1,007,730	3,657,312	6,306,894	8,956,476	11,606,058	14,255,640	16,905,222	19,554,804	22,204,386	24,853,968	
45	248,530	2,898,112	5,547,694	8,197,276	10,846,858	13,496,440	16,146,022	18,795,604	21,445,186	24,094,768	
40	-510,670	2,138,912	4,788,494	7,438,076	10,087,658	12,737,240	15,386,822	18,036,404	20,685,986	23,335,568	
Hotel occupancy %											

SECTION B

TWO questions ONLY to be answered

QUESTION 3 – NCL PLC

NCL plc, which has a divisionalised structure, undertakes civil engineering and mining activities. All applications by divisional management teams for funds with which to undertake capital projects require the authorisation of the board of directors of NCL plc. Once authorisation has been granted to a capital application, divisional management teams are allowed to choose the project for investment.

Under the terms of the management incentive plan, which is currently in operation, the managers of each division are eligible to receive annual bonus payments which are calculated by reference to the return on investment (ROI) earned during each of the first two years by new investments. ROI is calculated using the average capital employed during the year. NCL plc depreciates its investments on a straight-line basis.

One of the most profitable divisions during recent years has been the IOA Division, which is engaged in the mining of precious metals. The management of the IOA Division is currently evaluating three projects relating to the extraction of substance 'xxx' from different areas in its country of operation. The management of the IOA Division has been given approval by the board of directors of NCL plc to spend £24 million on one of the three proposals it is considering (i.e. North, East and South projects).

The following net present value (NPV) calculations have been prepared by the management accountant of the IOA Division:

	North Project		East Project		South Project	
	<i>Net cash inflow/ (outflow)</i>	<i>PV at 12%</i>	<i>Net cash inflow/ (outflow)</i>	<i>PV at 12%</i>	<i>Net cash inflow/ (outflow)</i>	<i>PV at 12%</i>
	£000	£000	£000	£000	£000	£000
Year 0	(24,000.00)	(24,000.00)	(24,000.00)	(24,000.00)	(24,000.00)	(24,000.00)
Year 1	6,000.00	5,358.00	11,500.00	10,269.50	12,000.00	10,716.00
Year 2	8,000.00	6,376.00	11,500.00	9,165.50	10,000.00	7,970.00
Year 3	13,500.00	9,612.00	11,500.00	8,188.00	9,000.00	6,408.00
Year 4	10,500.00	6,678.00			3,000.00	1,908.00
NPV		4,024.00		3,623.00		3,002.00

The following additional information concerning the three projects is available:

- (1) Each of the above projects has a nil residual value.
- (2) The life of the East project is three years. The North and South projects are expected to have a life of four years.
- (3) The three projects have a similar level of risk.
- (4) Ignore taxation.

Required:

- (a) Explain (with relevant calculations) why the interests of the management of the IOA Division might conflict with those of the board of directors of NCL plc. (10 marks)
- (b) Explain how the adoption of residual income (RI) using the annuity method of depreciation might prove to be a superior basis for the management incentive plan operated by NCL plc. (N.B. No illustrative calculations should be incorporated into your explanation). (4 marks)

The IOA Division is also considering whether to undertake an investment in the West of the country (the West Project). An initial cash outlay investment of £12 million will be required and a net cash inflow amounting to £5 million is expected to arise in each of the four years of the life of the project.

The activities involved in the West project will cause the local river to become polluted and discoloured due to the discharge of waste substances from mining operations.

It is estimated that at the end of year four a cash outlay of £2 million would be required to restore the river to its original colour. This would also clear 90% of the pollution caused as a result of the mining activities of the IOA Division.

The remaining 10% of the pollution caused as a result of the mining activities of the IOA Division could be cleared up by a further cash outlay of £2 million.

Required:

- (c) Evaluate the West project and, stating your reasons, comment on whether the board of directors of NCL plc should spend the further £2 million in order to eliminate the remaining 10% of pollution. (Ignore taxation.) (6 marks)
- (Total: 20 marks)**

QUESTION 4 – CORPORATE FAILURE

According to recent statistics from the UK's Ministry of Justice, almost 12,000 companies filed for insolvency in 2009 in England and Wales. This is forecasted to increase to around 13,500 in 2010.

The following data has been collected from the UK government's website on insolvency.

<i>Trading related bankruptcies by industry</i>	<i>% increase/decrease from Quarter 3 2009 to Quarter 1 2010</i>
Manufacturing	52%
Electricity, gas	24%
Construction	24%
Hotels, bars and restaurants	28%
Transport	22%
Finance and insurance	-19%
Real estate	16%

The total number of companies going into administration in the first quarter of 2010 was up 22.7% on the same period a year ago.

More recently retail and construction sectors have been hit the hardest with 431 and 500 businesses failing respectively.

Required:

- (a) Briefly explain the meaning of Corporate failure (4 marks)
 - (b) List the main symptoms of failure? (4 marks)
 - (c) How can we assess the likelihood of failure? (4 marks)
 - (d) There have been many attempts to develop models to predict the likelihood of corporate failure. Some of these have been quantitative such as the Z score and others qualitative like the Argenti model. Describe ONE of the TWO models mentioned. (8 marks)
- (Total: 20 marks)**

QUESTION 5 – ALPHA DIVISION

- (a) Alpha division has an external market for product A which fully utilises its production capacity.
 - (i) Explain the principle that would suggest that Alpha division should transfer product A to Beta division of the same group of companies at the existing market price.
 - (ii) Explain circumstances in which Alpha division may offer to transfer product A to Beta division at less than the external market price and yet report the same total profit. (4 marks)
- (b) The transfer pricing method to be used for an intermediate product between two divisions in a group is under debate. The supplying division wishes to use actual cost plus a 25% profit mark-up. The receiving division suggests the use of standard cost plus a 25% profit mark-up. A suggested compromise is to use revised standard cost plus 25% profit mark-up. The revised standard cost is arrived at after taking into account the appropriate elements of a planning and operational variance analysis at the supplying division.

Discuss the impact of EACH of the above transfer pricing methods and their acceptability to the supplying and receiving divisions. (6 marks)
- (c) Describe FOUR ways in which budgeting may be viewed as a useful management accounting technique. (5 marks)
- (d) Discuss why an activity-based budgeting system may be viewed as more useful than a traditional incremental budgeting system. (5 marks)

(Total: 20 marks)

(Total Section B: 40 marks)