



# BUSINESS AND MANAGEMENT HIGHER LEVEL PAPER 2

Tuesday 21 May 2013 (morning)

2 hours 15 minutes

INSTRUCTIONS TO CANDIDATES

- Do not open this examination paper until instructed to do so.
- Section A: answer one question.
- Section B: answer two questions.
- A calculator is required for this examination paper.
- Clean copies of the **Business and Management** formulae sheet and discount tables are required for this examination paper.
- The maximum mark for this examination paper is [75 marks].

## **SECTION A**

Answer one question from this section.

### 1. Las Rosas (LR)

*Las Rosas* (*LR*) is a large commercial dairy farm owned and managed by the D'Aremberg family since 1986. It has 3800 cows. *LR* sells milk, cheese and yoghurts. In 1996, *LR* started to export some of its dairy products. Profits and cash flow have been improving year on year. *LR* has no outstanding loans and therefore its current gearing ratio is zero.

*LR's* unique selling proposition (USP) comes from the organic quality of its products as they are made without chemical additives. The cows' diet does not include hormones and other supplements. The farm's products also meet national and international quality standards.

*LR's* corporate culture encourages innovation and the use of cell production. To stay ahead of the competition *LR* has increased its spending on research and development (R&D) and workers are given the opportunity to create new products, or to add value to existing ones. *LR's* financial manager, however, believes that the R&D budget is too high and needs to be cut. He also argues that there are too many legal constraints limiting the development of new products.

*LR*'s management is considering buying *El Remanzo*, a large sheep farm located nearby. This acquisition will cost \$24 million and *LR* will need to cut its R&D budget to zero and organize a new loan to finance the takeover. A significant restructuring would need to occur at both *LR* and *El Remanzo* to allow both companies to combine resources and knowledge. However, the potential economies of scale experienced by *LR* could be substantial.

Total capital employed at LR is \$45 million.

Year	Expected net cash flows (\$m)
1	2
2	5
3	9
4	12
5	17

[Source: © International Baccalaureate Organization 2013]

(This question continues on the following page)

# (Question 1 continued)

(a)	Describe <b>two</b> benefits for $LR$ of using cell production.		[4 marks]
(b)	Explain <b>two</b> benefits for <i>LR</i> of meeting quality standards.		[4 marks]
(c)	Calculate the following for LR (show all your working):		
	(i)	the payback period.	[2 marks]
	(ii)	the average rate of return (ARR).	[2 marks]
	(iii)	the net present value (NPV) using a discount rate of 8%.	[2 marks]
	(iv)	the gearing ratio if the acquisition of <i>El Remanzo</i> by <i>LR</i> is financed by a loan.	[2 marks]
(d)	Com	ment on your results to parts (c)(iii) and (c)(iv).	[3 marks]
(e)	Anal	lyse <b>two</b> costs to <i>LR</i> resulting from the acquisition of <i>El Remanzo</i> .	[6 marks]

#### 2. Icarus

*Icarus* is an adventure tourism company. It has developed a family brand of innovative tourism products, such as the World's first underwater theme park. Its next objective is to build the first hotel in outer space by 2016. *Icarus* conducted market research using stratified samples of businessmen/businesswomen and families with incomes over \$10000000. Most said that they would pay the proposed price of \$140000 per room per night. Although the hotel should create significant profits, *Icarus*' Board of Directors is concerned about both safety and financial risks.



[Source: http://en.wikipedia.org/wiki/File:Aurora-SpaceShuttle-EO.jpg]

*Icarus* has invested significant funds to develop safety procedures and to train the employees of the future hotel. *Icarus* wants to protect its brand image as the most trusted adventure tourism company in the world.

The hotel will have a capacity of 500 rooms. Originally (in 2012) *Icarus* forecasted the following (in \$):

- price per room per night (room rate): 140000
- fixed costs: 10 000 000
- variable cost per room per night: 100000.

Now (in 2013) the costs of construction, fuel and insurance have increased and affected the forecast. To ensure a 2016 opening, *Icarus* has identified a potential investor. The problem is that he expects a \$2000000 guaranteed (target) profit in the first year, but *Icarus* has promised not to increase its room prices. The following shows the revised forecasted figures (in \$):

- price per room per night (room rate): 140000
- target profit required by investor: 2000000
- fixed costs: 12000000
- variable cost per room per night: 108000.

The Board of Directors are concerned that:

- keeping room prices the same will reduce profits
- other adventure tourism companies are considering entering the outer space tourism market
- withdrawing from the project would damage *Icarus*' brand image and would cost millions of dollars.

(This question continues on the following page)

(Question 2 continued)

(a)	Describe two advantages to <i>Icarus</i> of having a family brand.		[4 marks]
(b)	Explain <b>one</b> advantage and <b>one</b> disadvantage to <i>Icarus</i> of using stratified samples in its market research.		[4 marks]
(c)	(i)	Using the <b>original</b> forecasted figures (in 2012), calculate <i>Icarus'</i> break-even point (show all your working).	[2 marks]
	(ii)	Using the <b>revised</b> forecasted figures (in 2013), calculate <i>Icarus'</i> break-even point (show all your working).	[2 marks]
(d)	(i)	Using the <b>revised</b> forecasted figures, construct a fully labelled break-even chart for 2013.	[4 marks]
	(ii)	Explain the limitations of the 2013 break-even chart from part (i) as a decision-making tool for <i>Icarus</i> .	[3 marks]
(e)	Ana	lyse Icarus' decision to open the first hotel in outer space.	[6 marks]

- 6 -

# **SECTION B**

Answer two questions from this section.

# 3. Construir

*Construir* is a large construction company that uses empowerment, job enrichment and teamwork to motivate its workers. Commitment to quality is strong, and productivity is high.

The company makes substantial investment in the training and professional development of its workers, who may receive both external and internal training:

- External training takes place at a local university. However, university training fees are rising.
- Internal training is led by managers within each department. However, some managers do not feel comfortable in this role.

Managers also conduct worker appraisals in order to monitor performance and reward success. However, some managers feel that it takes too long to appraise workers appropriately; they also say that for some workers the appraisal process can be very stressful.

The government is considering the construction of a bridge, which would take three years to complete. This would be through a public-private partnership with *Construir*. The government would pay half of the cost of construction and would give *Construir* the right to charge a fee to drivers who use the bridge. Building the bridge, however, would represent financial and operational risks for *Construir*.

The company will not be able to accept other construction projects in order to build the bridge. Moreover, a general election is due next year and the current government is unpopular and not expected to win. If a new government is elected, *Construir* believes that the project may be cancelled. Some local environmental pressure groups are currently campaigning against the bridge project, arguing that government funds should be spent on health and education.

(a) Define the following terms:

	(i)	productivity	[2 marks]
	(ii)	pressure groups.	[2 marks]
(b)	Exp	lain two non-financial rewards used at <i>Construir</i> to motivate workers.	[6 marks]
(c)	Ana gove	lyse <b>two</b> benefits for <i>Construir</i> of a public-private partnership with the ernment.	[6 marks]
(d)	Eval	luate Construir's training and appraisal methods.	[9 marks]

### 4. Oktopus Air (OA)

*Oktopus Air* (*OA*) is an airline targeting both business and economy class passengers. Customers have praised *OA* for its ethical objectives, its commitment to below market prices for both market segments and its mission statement: "In the air, we care for everyone!".

Employees have praised *OA's* Chief Executive Officer (CEO), Eythor Karlsson, for his situational leadership style. *OA's* flights are usually full and customer feedback is excellent.

Two social changes are affecting OA:

- Obesity is increasing. Very obese passengers are finding difficulty fitting into seats. On full flights, some passengers sitting next to a very obese passenger have complained about a lack of space. *OA* has decided to charge very obese passengers for two seats. A refund of one seat will be given if the flight is not full. Pressure groups representing very obese people have argued that *OA* is acting unethically. Eythor defended the decision, arguing that competitors were already carrying out the same practices. He added that very obese passengers can create safety problems during an emergency evacuation of the airplane.
- The second change is the increasing number of families with young children travelling in business class. Business passengers are complaining that young children are too noisy and are threatening to fly with competitor airlines. Eythor has suggested to *OA's* Board of Directors that a market gap could be filled if *OA* offered a family-only service, once a day, with additional play areas for young children and hence fewer passenger seats. Eythor has indicated that *OA* will need to raise prices for this service, change its promotional method for this service and create a new marketing mix. Some consumer groups recognize the good intentions of a family-only service; however they fear it could actually increase the hostility towards families with young children on other flights that *OA* offers.

(a)	Describe <b>one</b> possible above the line and <b>one</b> possible below the line promotional method for <i>OA</i> .	[4 marks]
(b)	Explain three stakeholder conflicts at OA.	[6 marks]
(c)	Analyse how the <b>two</b> social changes could affect <i>OA's</i> ability to fulfil its mission statement: "In the air, we care for everyone!".	[6 marks]
(d)	Discuss an appropriate marketing mix for <i>OA's</i> proposed new "family-only service".	[9 marks]