**PROFESSIONAL LEVEL EXAMINATION**

**DECEMBER 2016**

**Mock Exam 2**

**(2 ½ hours)**

# BUSINESS STRATEGY

This paper is made up of **THREE** questions (100 marks).

1. Ensure your candidate details are on the front of your answer booklet. You will be given time to sign, date and print your name on the answer booklet, and to enter your candidate number on this question paper. You may not write anything else until the exam starts.
2. Answer each question in black ballpoint pen only.
3. Answers to each question must begin on a new page and must be clearly numbered. Use both sides of the paper in your answer booklet.
4. The examiner will take account of the way in which answers are presented.
5. When the assessment is declared closed, you must stop writing immediately. If you continue to write (even completing your candidate details on a continuation booklet), it will be classified as misconduct.

**IMPORTANT**

Question papers contain confidential information and must NOT be removed from the examination hall.

You MUST enter your candidate number in this box.

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| | | | |

**DO NOT TURN OVER UNTIL YOU ARE INSTRUCTED TO BEGIN WORK**

1 The date is June 20X2. Palladium Printing Ltd (PP) is a printing company which produces high quality printed products for business customers.

**The UK printing industry**

**Scope and structure**

The UK printing industry generates about £10,100 million in annual revenues. It is highly fragmented comprising almost 14,000 companies, with approximately 61% of these having annual revenues of less than £250,000. At the other extreme, a few very large companies generate annual revenues in the range of £100 million to £500 million.

**Products and markets**

Printed products take many different forms, including advertising literature, tickets, business stationery, labels, brochures, newspapers, magazines and books. Customers are also diverse, encompassing private sector businesses, public sector organisations, charities and individuals. Contracts with customers vary significantly in nature and size. These range from large annual contracts to one-off jobs. Some printing companies provide related services, such as binding (of books and magazines) and graphic design.

**Imports and exports**

UK printing companies are major exporters to the rest of Europe. However, the UK market is also served by low-cost imports for some types of printed product, particularly from large-scale, efficient, low-cost printing companies located in developing economies.

**Technology and processes**

There are two main types of printing process in use in the industry – digital printing and lithographic (litho) printing. Smaller printing companies use only digital printing. Larger printing companies use both processes.

With digital printing, digitally recorded data and images are stored, reorganised and adapted on computer, then transferred to a printing machine and printed onto paper, plastics, metal and various other materials. Digital printing has a relatively high average cost per page, but set-up costs of the printing machines are low for each print run, and turnaround times from order to delivery are quick, so printing short or medium-sized print runs at short notice (on-demand printing) is cost-effective. The initial capital cost of the computers and printing machines is relatively low. With some digital printing systems, printed products can be customised for each item printed.

Litho printing is suitable for long, standardised print runs and for printing of items with complex or very high quality features such as metallic ink on greetings cards. It requires significant capital investment in complex printing presses. Litho printing can have a low cost per page for long print runs, however there is significant time and cost in setting up a printing press for each print run. Labour costs for litho printing are also high because of its highly skilled nature. With litho printing, each item produced within a print run is identical.

**Suppliers**

The major raw material input for print companies is paper. Paper prices rose by an average of 15% at the beginning of 20X1. This was because paper mills suffered an increase in energy and transportation costs which were passed on, in full, to printing companies. There are over 50 major paper manufacturers operating in Europe and they tend to be large, highly mechanised companies.

**Industry profitability**

The profitability of the UK printing industry has fallen significantly in recent years and, as a consequence, approximately 16% of UK printing companies ceased to trade in 20X1. Most of these were small companies. One cause was a recent economic recession, whereby customers put pressure on prices and reduced the volumes demanded (ie, the number of print runs, the length of print runs and also the number of pages of each printed product). The other major cause has been the growth of electronic communication, including the internet, e-books, email and other on-line forms of media. Conversely, however, technology has also been a means of lowering costs within the printing industry (eg digital printing) and of improving the quality and flexibility of printed products.

There has been a trend towards reducing paper communication for environmental and sustainability reasons.

**Company background**

PP uses only digital printing. For a minority of jobs, PP also provides the add-on service of graphic design, whereby PP's graphic designers help customers produce the required images for printing. PP aims to produce at the upper end of digital printing quality, to offer on-demand printing and to give a customised service that meets individual customer needs. PP cannot compete on a cost basis with litho printing companies for long-term contracts with long print runs, so currently it focuses on medium sized, one-off jobs in the business market.

PP has performed poorly in recent years, although demand improved in 20X2. The chief executive, John Johnson, summarised the situation at a recent board meeting. 'Quite frankly, we are struggling to compete. We are being squeezed between the very small local printing companies for short print runs, and the major litho printing companies for long print runs. Price competition is severe and margins have fallen.'

**Strategic review**

A board meeting was called to assess PP's current position and initiate a strategic review.

The finance director commenced the meeting: 'I have provided some financial and operating data (**Exhibit 1**) and it is clear to me that our graphic design activities should be closed. We need to be ruthless if we are to survive.'

The technology director offered an alternative view: 'We need to offer a service that better meets the needs of customers. There is new software and supporting technology available, variable data printing (VDP). This would let us use client databases to provide a customised service for them by personalising every item printed, even on longer print runs.

'For example, one of our customers is a department store which currently sends out a 200-page brochure to its customers. The VDP software would enable us to print only the pages which are relevant to each customer's interests, and we can print each customer's name on each brochure.'

The marketing director, Haraj Harris, was enthusiastic about combining VDP with PP's printing machines. 'This is just what we need. I am negotiating a possible three-year contract with Southern University (SU) which would be a large contract for us.

'SU currently sends 20,000 full prospectuses out each year to students who are considering applying to study at the university. The full prospectus describes every academic course SU offers. However, most potential applicants are interested in only two or three of those courses. Also, they complete a prospectus request form with personal details (eg courses considered, home address, interests, gender) which are then held by SU on a database.

'SU usually places the annual print run with a large litho printing company, so we cannot compete on cost under the current arrangements. However, using VDP, combined with our ability to print on demand, may help as we could print personalised mini-prospectuses which contain only material that is relevant to each potential applicant. I have provided some data on the potential SU deal (**Exhibit 2**).'

**Requirements**

1.1 Evaluate the competitive forces in the UK printing industry using Porter's Five Forces model. **(10 marks)**

1.2 Using the data in Exhibit 1 and the other information provided, analyse and explain the performance of PP in each of the accounting periods from 1 January 20X0 to 30 June 20X2. **(15 marks)**

1.3 Draft a letter to SU for Haraj Harris which explains the benefits to the university of changing to PP for the printing of mini-prospectuses, instead of using a litho printing company for the printing of full prospectuses. You may assume that PP will make use of VDP and that SU has a database available of details from potential applicants. **(8 marks)**

1.4 With respect to PP's strategic review:

(a) Determine the break-even price per mini-prospectus for PP for the SU contract. (Ignore the time value of money.)

(b) Explain the factors that PP should consider in determining whether it should close the graphic design section. **(12 marks)**

**Total: 45 marks**

**Exhibit 1: Financial and operating data**

| | Notes | Year to 31 December 20X0 | Year to 31 December 20X1 | Estimate for six months to 30 June 20X2 |
|---|---|---|---|---|
| **Financial data:** | | £ | £ | £ |
| Revenue: | | | | |
| Printing | 1 | 2,400,000 | 2,500,000 | 1,330,000 |
| Graphic design | 2 | 60,000 | 60,000 | 30,000 |
| Total revenue | | 2,460,000 | 2,560,000 | 1,360,000 |
| Fixed operating costs | 3 | (800,000) | (800,000) | (400,000) |
| Variable operating | | | | |
| Employee costs | | (600,000) | (600,000) | (300,000) |
| Paper | | (790,000) | (845,000) | (460,000) |
| Other | | (190,000) | (245,000) | (160,000) |
| Operating profit | | 80,000 | 70,000 | 40,000 |

| | Notes | Year to 31 December 20X0 | Year to 31 December 20X1 | Estimate for six months to 30 June 20X2 |
|---|---|---|---|---|
| **Other operating data:** | | | | |
| Employees | 4 | 30 | 30 | 30 |
| Print runs completed | | 1,200 | 1,300 | 800 |
| Pages printed (in millions) | | 65 | 68 | 42 |

**Notes**

1 Printing revenue

The Anniversary Games (a sporting event to be held in July 20X2 to celebrate the time London hosted the Olympics) added significantly to revenue in the year ended 31 December 20X1 and in the six months to 30 June 20X2, but no reliable estimates can be made to measure this effect as many jobs were only indirectly related to the Anniversary Games. No further revenues are likely to arise from the Anniversary Games after 30 June 20X2.

2 Graphic design revenue

Graphic design work is performed for a minority of customers and always as part of a particular print run. In these cases, a general formula is applied that graphic design revenue is 10% of the total amount charged for the print run.

3 Fixed operating costs

Fixed operating costs include premises and machine costs and are incurred on a time basis. They have been reasonably consistent per month over recent years.

4 Employees

Three employees work in the graphic design department.

**Exhibit 2: Data on the potential SU contract**

The contract with SU would be for three years.

In the past, full prospectuses of over 200 pages were all identical and were printed in August each year in one long print run of 20,000 units. If the contract were to be awarded to PP it would use VDP and would produce only personalised mini-prospectuses of a fairly standard length (around 40 pages). Printing would take place once a month over the period August to December. Each month, SU would provide a database of potential applicants' personal and academic details one week prior to printing to enable the latest data to be incorporated.

SU estimates that 20,000 mini-prospectuses will be required in 20X2. Due to SU's expansion and improving reputation it will require 32,000 mini-prospectuses in 20X3 and 35,000 in 20X4.

Total variable operating costs will be £1.60 per mini-prospectus. Incremental fixed operating costs for this contract will be £11,600 per year.

SU requires the price it pays per mini-prospectus to be the same over the whole of the three-year contract.

2 Flambard Foods plc (FF) is a manufacturer and retailer of frozen ready-made meals.

**Company history and operations**

FF was established by Brendan Bantam a number of years ago. He is still the main shareholder and chief executive.

Ingredients used to make the meals, including vegetables, dairy products, fish and meat, are bulk purchased by FF from the lowest cost source within Europe. This is normally from large, low-cost farms in Eastern Europe, which deliver directly to the FF factory in the UK. The quality of ingredients is the minimum acceptable to consumers. The range of ingredients is small to keep logistical processes simple and distribution costs low.

Ingredients are prepared and cooked by FF to create ready-made meals (for example, chicken with rice). These are then packaged and frozen. Each is a complete meal and the consumer has no need to carry out any food preparation beyond heating the meal.

FF employs mainly unskilled workers at the legal minimum wage. Factory operating rules are strictly applied to employees in order to maximise labour efficiency and comply with health and safety laws. Staff turnover is high, but there is significant local unemployment. This means that FF can always employ new staff at the legal minimum wage.

Brendan personally maintains tight operational and financial controls over the business to minimise all costs.

The production process is automated, but simple. A small range of meals is manufactured so production runs are long and operating efficiency is high. Manufacturing scheduling is in regular weekly production cycles, so ordering of ingredients is predictable and can be planned weeks in advance. The limited product range facilitates a simple, but efficient, inventory control system. With only a few suppliers, control of accounts payable is a very basic operation.

Once frozen, the meals are stored in a large freezer warehouse next to the factory. FF has its own fleet of 10 lorries, which have freezer facilities and are in use 24 hours a day, five days each week. This fleet collects the frozen meals in cartons from the warehouse and distributes them to FF's chain of 200 shops located throughout the UK.

FF shops currently only sell FF frozen ready-made meals. Prices undercut almost all rivals in the sector. There are no credit sales.

**The industry background**

The ready-made meals industry has two sectors: frozen meals and chilled meals. The chilled meals sector comprises about 65% of the UK ready-made meals market and is growing. The frozen meals sector makes up the remainder and is declining.

Chilled meals are stored at temperatures just above zero, whereas frozen meals are stored at around minus 20 degrees Celsius. As a result, chilled meals are higher quality than frozen meals, but have a higher price. Chilled meals can be displayed in shop fridges for only a few days before being discarded if unsold, whereas frozen meals can be displayed in shop freezers for months.

Profit margins are much higher for ready-made meals than they are for produce sold in shops as raw ingredients. Margins are higher for chilled meals than for frozen meals.

In recent months, supermarkets have reduced the prices of their chilled meals and increased marketing expenditure to boost volumes. This has put pressure on the frozen meals sector.

**A new venture**

While FF remains profitable, sales have fallen across the frozen ready-made meals sector.

Brendan has therefore put a proposal to the FF board that the company should enter the chilled ready- made meals sector. He summarised his proposal:

'The chilled meals market is growing, while the frozen meals market is declining. We can no longer be excluded from the chilled meals market. There are some problems though. FF's existing operations are suitable for frozen meals, not chilled ones, so we will need capital investment in chilled storage and transport alongside our existing frozen facilities. However, most production processes, prior to freezing or chilling, will be common to both types of product.

'Also, if we try to copy our competitors we will merely be seen as a late entrant. I think we should focus on a theme of food by geographical origin. The market is already well served by meals in Italian, Chinese and Indian cooking styles, including some of our own frozen meals.

'My idea is therefore to produce chilled meals in cooking styles where existing supply is currently limited. I favour Polish, Lebanese and Vietnamese cooking styles. These have a growing reputation in restaurants, but they do not have much presence on the chilled meals shelves of supermarkets. I would like to sell them in our existing shops alongside our frozen meals.

'My problem is that whilst I believe they will sell, I cannot be sure how many and at what price.'

**Requirements**

2.1 Based on the existing frozen meals operation and ignoring the proposed new venture:

(a) Prepare a value chain diagram for FF. Include brief notes describing each section of the diagram; and

(b) Briefly explain the FF value chain and describe how FF creates value.

**(14 marks)**

2.2 Explain the factors that the FF board should consider before deciding whether to enter the chilled ready-made meals market. For this purpose, ignore the specific types of cooking style that Brendan has suggested. **(10 marks)**

2.3 Assuming that FF decides to enter the chilled meals market, describe the market research that should be undertaken to determine whether FF should produce the meals in the three types of cooking style suggested by Brendan. **(8 marks)**

**Total: 32 marks**

3 The date is June 20X2.

Keeler Kinetics plc (KK) is an AIM listed company which manufactures small electrical appliances for use by consumers.

**Company history**

KK was listed on AIM in 20X1 when it was spun off from a large multinational electronic company, Vaart Inc (Vaart). Until then, KK had been a separate division within Vaart, manufacturing small electrical appliances. All the appliances had the Keeler brand and KK has retained this brand name.

KK's product range has 12 lines including vacuum cleaners, blenders, toasters and irons.

**Introducing the new business model**

In a presentation to financial analysts shortly after the establishment of KK in early 20X1, the new chief executive, Michael George, had summarised the changes necessary at that time as follows:

'It is not possible to continue to operate leading edge technology as we did when we were part of Vaart. The new business model is therefore to aim only to achieve basic consumer acceptability in terms of technical features. Typically, KK will introduce new technology about two years after the market leaders, when it is cheaper, well-established and has become a consumer expectation.

'Instead of offering the latest technology to consumers, KK will produce attractive designs in terms of shapes, materials and colours for all products, helped by engaging a world-leading firm of designers from Milan.

'This change in business strategy will require changes in our employees' skills. We need some voluntary redundancies to reduce the size of the workforce and reduce costs. However, lower costs and the absence of the latest technology should not mean a poor quality product. I want KK to be a producer of well-designed, good quality products.

'This new business strategy is likely to take some time to be recognised in the market and therefore operating losses may occur up to 20X2 and for some time afterwards. Nevertheless, the board believes this is the right strategy which will eventually produce the right results.'

**Monitoring the strategy**

Since early 20X2, when a loss was announced for 20X1, there has been some adverse comment by analysts about the operating losses and scepticism about the time it will take before generating a profit. Analysts want to know how KK is measuring success in the meantime.

Michael responded at a board meeting in May 20X2: 'We need to make sure that we have the right strategy even though we are not making any profit. I need relevant financial and non-financial measures to evaluate and manage KK's performance.'

**An ethical issue**

A new employee, Jack Eccles, joined KK having worked as an independent business adviser to the electrical appliances industry. On his computer at home, Jack has detailed files containing the KPIs (key performance indicators) used by several companies he advised which are rivals of KK. He also has data on the actual performance achieved in respect of these measures. Jack has offered to copy these files for KK management to help them set appropriate benchmarks. Alternatively, he has offered to join the KK team in setting KPIs, using his experience of rivals' businesses.

## Requirements

3.1 Prepare a Balanced Scorecard for KK which can be used to monitor its new business strategy. Explain why each of the four perspectives within this scorecard is important to KK and why the KPIs for each perspective are important for monitoring performance. **(16 marks)**

3.2 Assess the ethical implications for KK of accepting either of the offers from Jack. **(7 marks)**

**Total: 23 marks**

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ISBN 978-1-78363-332-6