



88115014



**BUSINESS AND MANAGEMENT
STANDARD LEVEL
PAPER 2**

Friday 18 November 2011 (morning)

1 hour 45 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.

SECTION A

Answer **one** question from this section.

1. Fang Kwong and XIAN Technology

Fang Kwong lives in a village in the mountains of western China. A major problem for the residents of that region is that they must transport large amounts of firewood for their kitchen ovens. Fang was told of a solution by *XIAN Technology*, which created a new type of kitchen oven that burns straw and other farm waste products instead of firewood.

Both *XIAN Technology* and the Chinese government wish to help small entrepreneurs* set up franchises to provide distribution channels for these new kitchen ovens. Fang is very keen to take advantage of this opportunity. She has identified a small local warehouse with sufficient storage space. In order to receive a US\$10 000 small-business loan from the government at the start of September 2012, she must complete a cash-flow forecast. She has estimated the following figures for the first six months of operation, to begin in September 2012:

(Assume one month is 30 days)

Sales	20 kitchen ovens per month at US\$50 for the first three months. From the fourth month Fang forecasts an increase in sales of two kitchen ovens each month.
Monthly rent	US\$400
Monthly salary	US\$200
Monthly supplies (e.g. stationery)	US\$50
Monthly interest on government loan to set up business	US\$42
Overhead costs	US\$200, payable every other month, starting in October 2012.
Fang’s purchases from <i>XIAN Technology</i>	<ul style="list-style-type: none"> • First month purchase of 60 kitchen ovens at US\$25 each and payable at the end of the second month. • From the second month purchase of 20 kitchen ovens per month, at US\$25 each and payable at the end of the following month.

Fang will need to purchase a lorry to deliver the *XIAN Technology* kitchen ovens to customers who live in remote villages. She will charge a delivery fee, but it will be insufficient to cover the cost of the purchase. Fang will need an additional source of finance for the lorry.

* entrepreneur: a person who starts up and runs a new business, which typically requires creative thinking on the part of the entrepreneur and considerable risk in the business environment (because it is a new venture, often a new idea)

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(Question 1 continued)

As a franchisee, she will be the only distributor of these new kitchen ovens in a 500 square kilometre area. However, Fang must submit financial accounts to *XIAN Technology* every three months. Despite the agreement, Fang fears that other distributors will soon start supplying similar products, resulting in increased competition and lower gross profit margins.

- (a) (i) Identify **two** appropriate sources of finance for Fang to purchase a lorry. *[2 marks]*
- (ii) Define the term *overhead costs*. *[2 marks]*
- (b) Prepare a monthly cash-flow forecast for the first six months of operation of Fang's business. *[6 marks]*
- (c) Explain *XIAN Technology's* requirement that Fang present them with financial accounts every three months. *[5 marks]*
- (d) Analyse the impact on Fang's business if new competition leads to a decrease in her gross profit margin. *[5 marks]*

2. Ashrafuzzman Manufacturing (AM)

Aaliyah Ashrafuzzman owns *Ashrafuzzman Manufacturing (AM)*, which produces wheelchairs in an industrial park in Dhaka, Bangladesh. One-third of the company’s revenue comes from sales in Bangladesh, and two-thirds of its revenue comes from sales in two southern European countries, where national medical insurance pays for wheelchairs for patients. In these southern European countries, *AM* is on the “approved” list of manufacturers.

Because *AM*’s factory is small and the complexities of producing and marketing two or more models of wheelchairs would be significant, the company produces only one model of wheelchair. The company uses a competition-based pricing strategy in the two markets in which it sells. Because of differences in the two markets, an *AM* wheelchair is considered high-priced and high-quality in Bangladesh and low-priced and low-quality in Europe.

In 2010, fixed costs at the company were US\$1 500 000. In its current facility, *AM* can produce no more than 44 000 wheelchairs per year.

Market	Total sales (US\$)	Sales (units)	Sales price per wheelchair (US\$)	Variable cost per wheelchair (US\$)
Two southern European countries	2 040 000	10 200	200	60
Bangladesh	1 050 000	10 500	100	60
Both markets	3 090 000	20 700	–	–

Recently, the European Union (EU) altered regulations regarding the minimum quality standards for wheelchairs paid for by national medical insurance. To meet the new standards, *AM* must:

- use higher quality materials costing 20% more per wheelchair
- hire four quality experts on a salary of US\$22 000 per year each
- lease new equipment at US\$132 000 per year.

With the higher quality, *AM* can increase the sales price of its wheelchairs in Europe from US\$200 to US\$212. In Bangladesh the sales price will remain the same.

Aaliyah has two growth options:

Option 1 To improve the quality of all *AM*’s wheelchairs (whether for sale in Europe or elsewhere), accept the lower profitability, and continue to sell in Europe.

or

Option 2 Not to improve the quality of the wheelchairs, stop selling in Europe, and enter the market in India, where *AM* can sell wheelchairs for US\$125.

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(Question 2 continued)

- (a) (i) Define the term *competition-based pricing*. [2 marks]
- (ii) Identify **two** increases in fixed costs that *AM* would incur to meet the new EU quality standards. [2 marks]
- (b) Calculate for 2010 (*show all your working*):
- (i) the contribution to *AM*'s fixed costs of a wheelchair sold in Europe [1 mark]
- (ii) *AM*'s overall net profit for both markets. [3 marks]
- (c) Using an appropriate layout, prepare a report showing the increase in costs and the impacts on profitability for *AM* if Aaliyah decides to proceed with **Option 1**. [7 marks]
- (d) Analyse the two growth options facing *AM* by applying the Ansoff matrix. [5 marks]

SECTION B

Answer *two* questions from this section.

3. Bauli's panettone¹



The large Italian company *Bauli* produces a variety of baked products such as croissants and biscuits, but it is most famous for its *panettone*, a specialty at Christmas. The original producers of *panettoni* were small luxury bakeries, which could bake a few expensive *panettoni* relatively easily. Michele Bauli claims that the quality of his product is what explains the company's success: "High investment in research and technology allows us to guarantee a uniform quality that small luxury bakeries find hard to achieve". It could be argued, however, that *Bauli's* success is mainly based on its low price. A *panettone* produced by a luxury bakery typically costs €30. A *Bauli panettone* costs €8.

Bauli produces on an industrial scale. Baking 12 million *panettoni* per year for sales across Italy and in European and American markets is a major challenge of workforce planning. *Bauli* meets the seasonal demand² for *panettoni* by hiring 1200 temporary workers for four months each year (from August to November). The company has also made significant technological innovations. According to Michele, "Attention to ingredients and the use of new technologies in production give the *panettone* a shelf-life of five months". *Bauli* has also developed a broader product mix, including the Colombo cake, which is popular at a different time of the year. The broader product mix reduces the need for temporary workers.

Bauli has not relied only on internal growth. In 2009, the company purchased two subsidiaries of the multinational food group *Nestlé*. As both subsidiaries produce *panettoni*, these acquisitions have increased *Bauli's* market share. They will also help *Bauli* meet the growing demand for *panettoni* in American markets.

[Source: adapted from <http://www.economist.com/>, 10 December 2009]

¹ *panettone*: in Italian *panettone* is singular, *panettoni* is plural

² seasonal demand: demand that varies at different times of the year

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(Question 3 continued)

- (a) Describe **one** reason why technological innovation has been important for *Bauli*. [2 marks]
- (b) (i) Explain **one** advantage and **one** disadvantage for *Bauli* of hiring temporary workers. [4 marks]
- (ii) Explain **one** difference between internal and external growth. [2 marks]
- (c) Analyse the benefits for *Bauli* of developing a broader product mix. [5 marks]
- (d) With reference to *Bauli*, evaluate the benefits of small versus large organizations. [7 marks]

4. Liturgi

Liturgi is an agricultural partnership that owns six farms located in Jaen in the south of Spain. The company produces good-quality olive oil, which is sold directly to consumers. The olive oil is distributed in 1 litre plastic bottles and larger orders are delivered in 5 litre containers. Sale of the olive oil is currently only in Spain. Most sales occur at the partnership's farm shop, with the remaining sales via telephone and Internet orders. Current promotion is mainly by "word of mouth" and a web page.

In addition to the current production of good-quality olive oil, some partners want to produce a second type of olive oil: a high-quality, organic olive oil produced in small batches. This would have a retail price of €15 per litre with a gross profit margin of 60% compared to €3 per litre for the current olive oil with a gross profit margin of 40%. However, two farm managers think that their olive trees are not of the quality required to produce the organic olive oil.

The partners realize that finding a new market for this organic olive oil will involve significant changes to current marketing practices and strategies, including new forms of distribution. The new organic olive oil will be targeted at expensive restaurants throughout Europe. *Liturgi* will need to hire a salesperson, who will be paid a salary plus commission.

- (a) Define the term *partnership*. [2 marks]
- (b) (i) Explain why quality control may become more important for *Liturgi*. [4 marks]
- (ii) Calculate the gross profit per litre for the two types of olive oil. [2 marks]
- (c) Using **two** elements of the marketing mix **other than** place, analyse *Liturgi*'s challenge to produce the new organic olive oil. [5 marks]
- (d) Discuss the effectiveness of the two types of distribution channels for *Liturgi*. [7 marks]

5. Four-day working week in Utah

In 2008, in an effort to reduce costs, the government of the state of Utah in the United States (US) considered adopting several contemporary workforce practices. Some of these, however, seemed impractical for offices in the public sector. After further investigation, the government realized that energy costs were among the fastest rising of its costs. As a result, in 2009 the government imposed a four-day working week for most state employees; most public sector offices are now closed on Fridays. Monday to Thursday, offices are open for 10 hours.

A social and environmental audit revealed the following advantages as a result of the shorter working week:

- There is a 13 % reduction in energy use in public sector buildings; Utah’s greenhouse gas emissions are reduced.
- With three-day weekends, employees have reported improved quality of life.
- Commuting costs for employees are reduced; there is less traffic congestion.
- Longer working days by state employees mean that their offices are more accessible to the public in the evening (Monday to Thursday).

However, the audit also revealed the following disadvantages:

- The working day is longer (10 hours versus 8 hours per day). As a consequence, some employees with young children have found it difficult to organize child care.
- The Friday closures have inconvenienced some members of the public.

After 12 months, Utah’s experience with the four-day working week is considered a success. 82 % of state employees prefer the new schedule. In experiments with the four-day working week in other American states, approval rates have not been as high as in Utah. Some experts claim that the high approval rate of the new working week is because employees like change to their routine, rather than actually preferring the new working week itself.

Public sector and private sector managers from around the world have contacted Utah officials to learn more about their new working week. Some managers in the private sector question whether the four-day working week would be appropriate for their companies.

[Source: adapted from <http://www.time.com/>, 7 September 2009]

- (a) Identify **two** examples of contemporary changes in work patterns and practices **other than** the adoption of the four-day working week. *[2 marks]*
- (b) (i) Explain **one** impact that the four-day working week in the public sector may have on the private sector in Utah. *[2 marks]*
(ii) Distinguish between the public sector and the private sector. *[4 marks]*
- (c) Analyse the value of the social and environmental audit to **two** different stakeholders of the government of the state of Utah. *[5 marks]*
- (d) Discuss **two** possible areas of conflict between **two** stakeholders when the government of the state of Utah imposed a four-day working week for most state employees. *[7 marks]*