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International Baccalaureate
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BUSINESS AND MANAGEMENT
HIGHER LEVEL
PAPER 2

Tuesday 6 May 2008 (morning)

2 hours 30 minutes

INSTRUCTIONS TO CANDIDATES

- Do not open this examination paper until instructed to do so.
- Answer four questions.

1. Marketing in a new technological environment, Second Life

Second Life is an online, virtual (computer generated) world that exists only on the Internet. Using a 3D virtual character, subscribers lead a second life, mimicking everything from visiting a nightclub to a career in real estate. Millions of dollars change hands daily online as residents create, buy and sell virtual products and services, which may include designer clothes, vehicles or casinos. *Second Life* registered its one millionth resident in late 2006 with one user making more than US$1 million buying, selling and renting virtual property.

Many companies such as *Dell, IBM* and *Kmart* use *Second Life* to market products or services to a niche audience and to target younger customers and technologically aware market segments. *Dell*, for instance, has an "in-world island" with a virtual replica of the *Dell* factory and a retail store where customers order PCs to be delivered to their virtual homes. On the island, customers pay in Linden Dollars, the official *Second Life* currency. The Linden can be converted into US Dollars and vice-versa. Rates fluctuate, but over the last few years have remained fairly stable as 250 Linden Dollars (L$) to the US Dollar. Customers can also order a real *Dell* computer that can be delivered to their real home and pay in US dollars. *IBM* recently purchased 12 islands within *Second Life* for virtual business training and simulations. Musicians and news organizations, including the *BBC* and the *Reuters* news agency, have a presence within *Second Life*. The *BBC*, which is frequently an early adopter, uses the island to debut new bands at virtual rock festivals.

According to *Business Week*, the biggest *Second Life* design shops charge corporate clients between US$10 000 and US$200 000 to establish a virtual world presence.

[Source: adapted from http://secondlife.reuters.com and http://whatis.techtarget.com]

(a) Define the term *niche market*. *[2 marks]*

(b) Explain the advantages to major corporations, like *Dell* and *IBM*, of market segmentation and consumer targeting. *[8 marks]*

(c) Discuss how firms may adapt their marketing strategies **and** marketing mixes to changes in technology such as the growth of *Second Life*. *[10 marks]*

2. Gemel Ltd

George Melly started a new business in January 2008. He set the firm up as a private limited company, *Gemel Ltd*. George took a majority 80% shareholding in the business and appointed himself as Chief Executive Officer. His accountant, Peter Mears, joined George buying the remaining shares. To finance the launch, George estimated a figure of $300 000. He produced a business plan and forecast financial information as part of the process of obtaining most of the required finance (see table below). George presented this financial information to Peter Mears.

Peter examined the figures and pointed out that George had omitted a provision for depreciation of the firm's fixed assets, which were valued at $200 000 on start-up. He suggested that George worked on the basis of a four-year life for the assets and estimated a scrap value of $40 000.

Forecast financial information for Gemel Ltd for the years 2008 and 2009

	2008 ($000)	2009 ($000)
Turnover	485	870
Cost of sales	245	450
Expenses	91	138
Non-operating income	11	13
Interest	20	55
Tax	35	60
Dividends	60	75

(a) Using straight-line depreciation, calculate the annual provision for depreciation that George had omitted. *(Show all your working)* *[2 marks]*

(b) Using the financial information provided for 2008 **and** 2009, prepare profit and loss accounts for the two years, adjusting the figures in the table above to include the provision for depreciation and re-calculating the tax payment to equal 25% of net profit before tax. *[8 marks]*

(c) Evaluate potential sources of finance for a small business like *Gemel Ltd* to fund the purchase of the following:

(i) stocks of finished goods for resale

(ii) delivery vans

(iii) land and buildings. *[10 marks]*

3. Vodafone

Vodafone, the British mobile telecom operator, is still growing thanks to its portfolio of assets in emerging markets. *Vodafone* predicts that these operations will deliver more value to its shareholders than the company's established, mature markets in Europe, Japan and the US.

With an early-mover advantage in developing markets, *Vodafone* anticipates that 60 % of its growth in the next five years will come from emerging markets. Revenues are forecast to rise to $310 billion by 2010, 79 % above 2006, equivalent to an annual growth rate of more than 12 %. This compares to 4 % growth in the company's mature markets.

Consumers in countries such as Turkey, South Africa, Egypt, India and China are embracing the mobile phone faster than fixed-line services. *Vodafone's* own research shows how fast mobile penetration is growing. In the first half of 2006, revenue was up 47 % in India, 41 % in Romania and 18 % in South Africa. This contrasted with declines in Britain and Japan and gains of barely 1 % in Germany and the US.

Vodafone's continued success depends on India and China, where it owns a 10 % stake in *Bharti Telecom* and 3.27 % in *China Mobile*, and on building relationships with local government regulators. However, even established multinationals can get it wrong in new markets, because of legal constraints, cultural differences or misjudged capital expenditure.

Source: adapted from http://www.thebusinessonline.com "Vodafone looks abroad for growth surge in mobile phone sector" by Arindam Nag and Martin Fluck, 4th July 2007, reprinted with permission.

(a) Define the term *capital expenditure*. *[2 marks]*

(b) Explain the driving forces that influence companies, such as *Vodafone*, to become more global in their operations. *[8 marks]*

(c) Evaluate potential difficulties *Vodafone* may face expanding further in the developing markets of India and China. *[10 marks]*

4. PMG

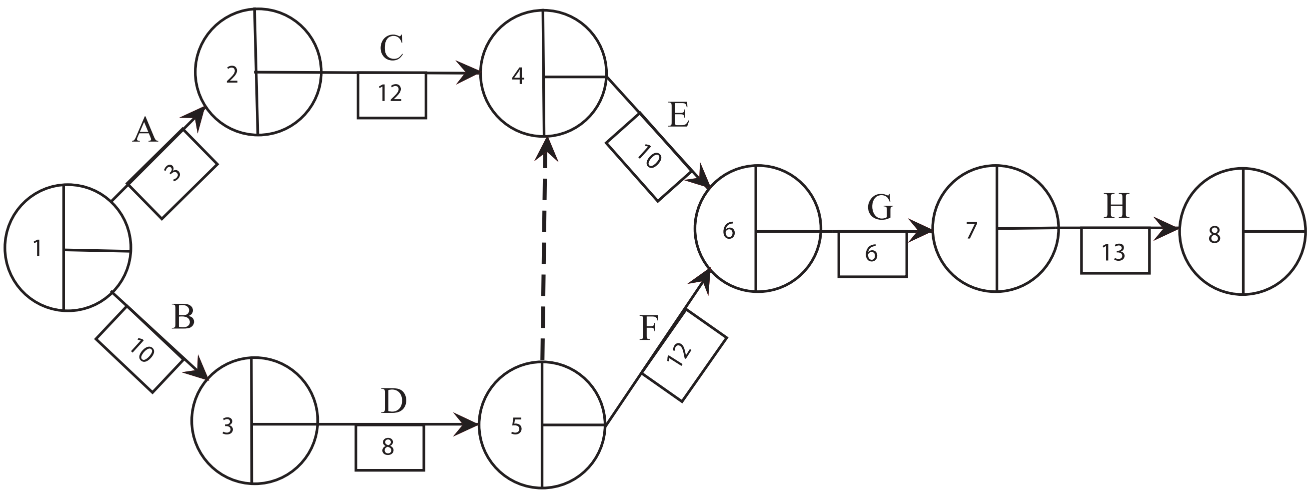
PMG is a traditional family engineering firm recently taken over by a major multinational organization. The new operations manager, Susie Chen, recently graduated from a business school in Taiwan. She is determined to update the organizational structure of *PMG* and to introduce new patterns of production, such as moving from batch to flow production. In particular, Susie is focusing on:

- the development of flexible project teams
- introducing a total quality management culture, including benchmarking and continuous improvement
- computerization of production, administration and communication systems.

Susie has taken over the planning of a building project. The previous project manager had begun to prepare a network diagram for the project shown below.

Susie believes that the new production system will reduce the time taken to complete the project as well as its cost. In particular, she plans to reduce the time taken to complete activity B by two weeks and activity F by three weeks.

(durations are in weeks)



(a) Define the term *batch production*. *[2 marks]*

(b) (i) **On the lined paper provided for your answer**, construct a completed network diagram for the building project using the information provided in the figure above. Show the earliest start time (EST) and latest finish time (LFT) for each activity and identify the critical path. *[6 marks]*

(ii) Calculate any changes to the duration of the project **and** to the critical path if Susie Chen reduces the time taken to complete activities B and F as she planned. *[2 marks]*

(c) Discuss how Susie Chen should introduce **and** manage her proposed changes to ensure their successful implementation. *[10 marks]*

5. The Battle for the Best

A growing number of companies are complaining that they are finding it harder to recruit people. An international survey for the Corporate Executive Board in 2006 found that 62 % of senior human resource managers are worried about company-wide talent shortage. Managers face a dilemma. How do you recruit and retain employees when there is a shortage of skilled labour? How do you reward and motivate people who can easily move elsewhere?

It is argued that intangible assets account for half of the market value of America's public companies. The world supply of workers is contracting. By 2025, the number of people aged 15 to 64 is projected to fall by 7 % in Germany and 14 % in Japan. In addition, the retirement of the "baby boom" generation will lead to the loss of many experienced workers. Demographic and social change means that companies will find it harder to find suitable replacements domestically. They will have to develop their employees' talent through training and be prepared to consider changes in work patterns and practices.

Companies will also have to deal with the collapse of loyalty as workers are more willing to move to the highest bidders. Even China and India are suffering from acute skills shortages at the higher skill end of the market. Workers are starting to demand higher rewards for their talents.

[Source: adapted from *The World in 2007: The Economist*]

(a) Define the term *intangible assets*. *[2 marks]*

(b) Comment on how management may adapt work patterns and practices in response to the demographic and social change identified in the article. *[8 marks]*

(c) Evaluate financial rewards **and** methods of payment that will enable firms to recruit and retain skilled employees. *[10 marks]*

6. Mega-deals

The value of international mergers and takeovers in 2006 was $3.5 trillion, even exceeding levels during the technology boom. This is globalization as never seen before: a borderless economy that allows investment banks to fund takeovers from the four corners of the earth.

Acquiring firms are taking on debt when interest rates are historically low, seeking to gain the advantages of economies of scale. The biggest global deal in 2006 was US-based, with American telecom giant *AT&T* buying competitor *Bellsouth* for $83 billion. The opening up of European markets by the competition authorities has set the scene for several mega-mergers. Even traditionally protectionist France failed to avoid the impact of globalization, with *Euronext*, the country's stock exchange operator agreeing to a $20 billion takeover by the *New York Stock Exchange*.

The most important issue is whether mergers and takeovers actually deliver long-term value to the business. Most surveys say they do not, although they enrich investment banks and managers. The future often looks bright immediately after a merger or takeover, but the real results can only be seen somewhere between one and three years later. In reality, the market value of half of the companies that were involved in mergers or takeovers had failed to keep up with the industry index. This explains why de-mergers occur: years ago, *BMW* sold off *Rover*, to the great relief of many shareholders and more recently *Daimler* untied its links with the loss-making carmaker *Chrysler*.

[Source: adapted from *The Observer*, 24 Dec 2006, *The Business*, 23 Dec 2006 and http://www.dw-world.de, 27 Dec 2006]

(a) Define the term *globalization*. *[2 marks]*

(b) Explain the reasons why firms such as *AT&T* merge with, or takeover, other firms. *[8 marks]*

(c) Discuss how important the external environment is in influencing the number and size of mergers and takeovers. *[10 marks]*