



88135012



**BUSINESS AND MANAGEMENT
HIGHER LEVEL
PAPER 2**

Thursday 21 November 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].

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SECTION A

Answer **one** question from this section.

1. Scoot Fun (SF)

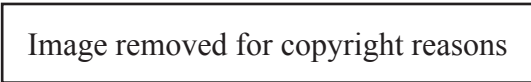
Scoot Fun (SF) is a family-owned private limited company specializing in scooter rentals to a student market segment. Most of the scooters will need replacement in January 2014. *SF* will purchase 20 new scooters at a total cost of \$80 000. They are expected to have a useful life of four years and the total residual value (scrap value) of the 20 scooters is estimated at \$4000.

SF's Finance Manager currently uses a straight line method of depreciation, but she has now decided to adopt a reducing balance method of depreciation. However, she is still considering the percentage rate at which the assets (scooters) should be depreciated. The Finance Manager is also looking for various sources of finance for the purchase of the new scooters.

SF's shareholders would like to receive higher dividends in the coming year. One way to do this is to find a legal way to reduce *SF's* tax expense in the coming year.

- (a) Describe **one** advantage and **one** disadvantage of a private limited company. [4 marks]
- (b) Explain **two** appropriate sources of finance that *SF* could use to purchase the 20 new scooters. [4 marks]
- (c) (i) Using the **straight line** method of depreciation, calculate the depreciation for each year **and** the book value (value of scooters less depreciation) of the 20 new scooters at the end of each year of their expected useful life (four years) (*show all your working*). [4 marks]
- (ii) Using the **reducing balance** method of depreciation, calculate the depreciation for each year **and** the book value (value of scooters less depreciation) of the 20 new scooters at the end of each year of their expected useful life (four years). Use a 40% depreciation rate (*show all your working*). [4 marks]
- (iii) Explain **one** consequence of the Finance Manager's decision regarding the percentage rate at which the assets should be depreciated. [3 marks]
- (d) Examine the decision of *SF's* Finance Manager to change the depreciation method from straight line to reducing balance. [6 marks]

2. Crisis management and Mapa



The Portuguese company *Mapa* manufactures a handheld global positioning system (GPS)* device. In the winter of 2012, *Mapa* received reports that its GPS devices often failed in extremely cold weather. According to the media, the problem first appeared in 2011, when mountain climbers with the *Mapa* GPS devices discovered inaccuracies in the coordinates the devices provided. Rumours of the GPS failure began to circulate in the climbing community. Then, after several accidents in the mountains, including fatalities, television news programmes began to report the problem. Only then did *Mapa* begin to take action.

Engineers concluded that the problem resulted from where and when the quality testing was being performed. The production of a component part outsourced to a company in Iceland was being quality tested in Portugal in the summer. There was also poor communication between the producer of the component part and *Mapa* because of differences in language and culture.

Mapa's tall organizational structure, bureaucracy (and bureaucratic corporate culture) and centralized decision making meant that no manager acted until the Chief Executive Officer (CEO) formally apologized. As a result, *Mapa* had taken too long to admit that there was a problem and so consumer confidence fell and *Mapa's* reputation suffered.

The production process of the GPS device is shown in the table below:

	Task	Order/Dependency	Time (days)
A	Design device layout	Can start at the same time as B and C	30
B	Create electronics	Can start at the same time as A and C	60
C	Create software	Can start at the same time as A and B	90
D	Build body	Must follow A	20
E	Combine parts	Must follow D	20
F	Activate electronics	Must follow B and E	5
G	Activate software	Must follow C and F	5
H	Insert special features	Must follow G	6
I	Test	Must follow H	3

* global positioning system (GPS): provides location, including geographic coordinates and time information to users anywhere on earth as long as their receivers (commonly a handheld device such as a smartphone with a GPS application) have unobstructed lines of wireless transmission to various GPS satellites

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(Question 2 continued)

- (a) (i) Define the term *outsourcing*. [2 marks]
- (ii) Identify **two** features of a quality control system. [2 marks]
- (b) (i) Construct a fully labelled network diagram to represent the sequence of tasks in the table. Show the earliest starting time (EST) and the latest finishing time (LFT) for each task **and** identify the critical path. [6 marks]
- (ii) Calculate the total float and the free float for Task B and describe the impact of delaying Task B by 20 days. [3 marks]
- (c) Using a (cause-and-effect) fishbone diagram, explain why *Mapa* was slow to respond to the problem with its GPS devices. [6 marks]
- (d) Examine the importance of communication for *Mapa* in its management of the crisis. [6 marks]

SECTION B

Answer *two* questions from this section.

3. Recruiting a new CEO

A company can spend a large amount of money to recruit a well-known and successful Chief Executive Officer (CEO) from outside the organization. However, recently published research suggests that recruiting externally is not only costly, but it is also risky, disruptive and demotivating.

Two long-term studies of 36 large public limited American companies found the following:

- The companies that promoted CEOs internally performed better than those that recruited externally.
- “Outsider” CEOs (recruited externally) have a significantly higher failure rate than “insider” CEOs (recruited internally). 40% of “outsider” CEOs stayed for two years or less.
- The average financial reward package for “outsider” CEOs, including salary, bonuses and profit-related incentives, was 65% higher than for those appointed internally.
- “Outsider” CEOs feel empowered to impose rapid change and to assert their authority on the company, even before they really understand the organizational culture. The arrival of an “outsider” CEO is often quickly followed by the departure of senior managers.
- “Outsider” CEOs are very good at rapid cost-cutting and eliminating unprofitable products/activities, a skill that is very valuable when a competitive advantage needs to be gained or restored in a competitive environment.

Apple, Dell™, Microsoft®, Intel®, McDonalds® and Nike® are successful American companies that appointed CEOs internally between 1998 and 2007.

A comparison of average performance indicators between 1998 and 2007 is shown below:

	Companies led by an “insider” CEO	Companies led by an “outsider” CEO
Return on capital employed (ROCE)	20.3%	15.8%
Revenue growth	11.9%	4.4%
Earnings per share	13.9%	4.6%
Net profit margin	7.9%	6.0%

Some critics of the two American studies argue that companies promoting CEOs internally usually have a strong corporate culture and are already efficient and profitable. These critics also argue that the performance indicators in the table do not measure the exact contribution of individual CEOs.

[Source: adapted from Alexandra Frean, “The value of hiring chief executives on the inside track”, *The Times*, 4 April 2011. © The Times 04 2013]

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(Question 3 continued)

- (a) Describe **two** possible influences on organizational culture. *[4 marks]*
- (b) (i) Explain the importance of earnings per share to a shareholder. *[2 marks]*
- (ii) Distinguish between **two** external methods of recruitment that an organization could use to recruit a new CEO. *[4 marks]*
- (c) Examine the usefulness to an organization of rapid change management imposed by a new “outsider” CEO. *[6 marks]*
- (d) Discuss whether organizations that promote CEOs internally are more likely to be successful. *[9 marks]*

4. Predicting the future

Traditional secondary research to identify trends, to forecast and to provide data about seasonal and cyclical variation is increasingly outdated, particularly as many products are sold through e-commerce.

Today online forecasting is becoming popular. *Google*TM's chief economist has found a correlation between sales of products (such as cars and holidays) and levels of online *Google*TM searches for information about those products.

To make market predictions, market researchers are increasingly using social media* to collect online messages in order to understand consumers' moods. They use web-based data to build a "real time" measure of consumer emotions and preferences and then use the results for predicting consumers' behaviour. Some companies such as *Coca Cola*®, *Starbucks*® and *Disney* already use social media for online market research.

Dr Bollen of Indiana University, United States, found that:

- *Twitter* users' collective mood changes coincide with national events.
- A correlation exists between trends in national mood (expressed in millions of *Twitter* messages) and changes in share prices. Three days after an increase in anxiety levels, share prices tend to fall (although it is unclear why this happens).
- Investors use social media to guide their decisions.

Users of social media share information online about feelings and purchasing intentions. They are unconcerned by market researchers using software such as "Wise Window" to follow them constantly in order to forecast demand.

Technologically advanced software can recognize sarcasm, double meanings and cultural references. However, interpreting slang expressions remains a challenge.

Mr Watts, an Internet researcher at *Yahoo!*®, said that to be useful, a forecasting technique must add something new to what is already known. The use of social media will only add value to forecasting if other sources of information are limited. He warned that sophisticated methods based on the analysis of *Twitter* messages, blog postings or *Facebook*® pages have limitations.

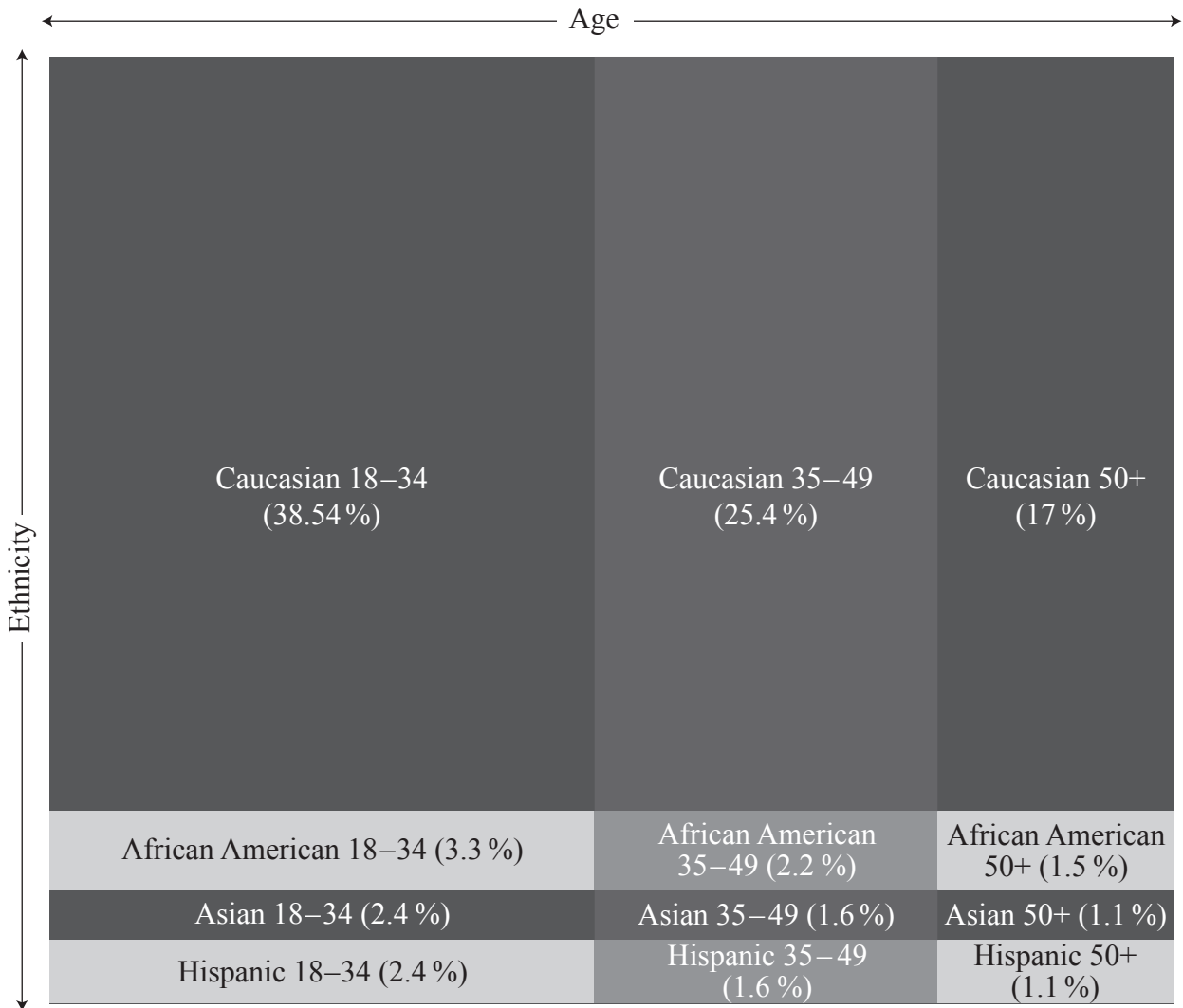
[Source: © International Baccalaureate Organization 2014]

* social media: refers to various forms of relatively new electronic technologies that allow individuals, groups and organizations to communicate with one another. The communication is "virtual" (across the world wide web and through electronic transmission) and is typically interactive. One frequent feature is the ability of a participant to pass on a communication it has received to other persons, groups, or organizations.

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(Question 4 continued)

Twitter Demographics (Infographic)



[Source: <http://heidiallen.id.au/?s=twitter+demographics>]

- (a) Describe **one** advantage and **one** disadvantage to an organization of using e-commerce. [4 marks]

- (b) (i) Explain **one** benefit of sales forecasting for an organization. [2 marks]

- (ii) Distinguish between seasonal **and** cyclical variations to predict sales trends. [4 marks]

- (c) Examine the usefulness of traditional secondary research to identify market trends and for forecasting. [6 marks]

- (d) Evaluate the use of “social media to collect online messages in order to understand consumers’ moods” for making market predictions. [9 marks]

5. Kodak

Kodak, after decades as the leading American camera and photography company, went bankrupt in 2012. Despite its large research and development (R&D) budget, *Kodak* concentrated on products related to its film-processing business, a market that *Kodak* had long dominated. However, digital technology had changed photography dramatically, and *Kodak*, unlike its competitors, failed to innovate.

At least three times, *Kodak* misunderstood consumer desire to interact with photos and the external environment:

- Digital cameras – In 1975, *Kodak* invented the first digital camera but did not sufficiently develop this technology. Its cameras were always perceived as satisfactory products, but “nothing special”. Competitors innovated with features such as face-and-smile detection. *Kodak* only followed trends, never led them.
- Photo viewing – In 2002, *Kodak* entered the market of low growth, small margin products, such as digital photo frames. *Kodak’s* products did not have a unique selling point (USP) and were unsuccessful.
- Photo sharing – In 2005, *Kodak* developed the first WiFi camera, but sales were disappointing. Shortly thereafter, a new business opened, *Eye-Fi*, which proved *Kodak* wrong about WiFi. *Eye-Fi* created a successful business based on WiFi memory cards for cameras – the concept that *Kodak* had abandoned and not patented.

The conclusions from *Kodak’s* bankruptcy are clear:

- “Cannibalism” – do not be afraid to develop a new technologically advanced product even if it causes the decline of your existing products.
- Innovation – do not be afraid to take risks. *Kodak’s* inability to give any of its digital products a USP shows its failure to take advantage of inventions. Innovation also requires strategic vision.
- New product design – do not be afraid if sales do not happen immediately. *Kodak* withdrew its WiFi cameras simply because the first model sold poorly.

As the evidence shows, not taking risks in new inventions will reduce profit margins in the long run. Small, innovative business start-ups such as *Canon* can often successfully penetrate markets dominated by big companies unless those companies use their resources to keep up-to-date.

[Source: © International Baccalaureate Organization 2014]

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(Question 5 continued)

- (a) Define the term *patent*. *[2 marks]*
 - (b) Describe **one** problem faced by a new business start-up. *[2 marks]*
 - (c) Explain the role and importance of research and development (R&D) for *Kodak*. *[6 marks]*
 - (d) Using the Boston consulting group (BCG) matrix, examine the reasons for *Kodak's* bankruptcy. *[6 marks]*
 - (e) With reference to *Kodak* **and one** other organization of your choice, evaluate the merits of small versus large organizations. *[9 marks]*
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