

© International Baccalaureate Organization 2021

All rights reserved. No part of this product may be reproduced in any form or by any electronic or mechanical means, including information storage and retrieval systems, without the prior written permission from the IB. Additionally, the license tied with this product prohibits use of any selected files or extracts from this product. Use by third parties, including but not limited to publishers, private teachers, tutoring or study services, preparatory schools, vendors operating curriculum mapping services or teacher resource digital platforms and app developers, whether fee-covered or not, is prohibited and is a criminal offense.

More information on how to request written permission in the form of a license can be obtained from <https://ibo.org/become-an-ib-school/ib-publishing/licensing/applying-for-a-license/>.

© Organisation du Baccalauréat International 2021

Tous droits réservés. Aucune partie de ce produit ne peut être reproduite sous quelque forme ni par quelque moyen que ce soit, électronique ou mécanique, y compris des systèmes de stockage et de récupération d'informations, sans l'autorisation écrite préalable de l'IB. De plus, la licence associée à ce produit interdit toute utilisation de tout fichier ou extrait sélectionné dans ce produit. L'utilisation par des tiers, y compris, sans toutefois s'y limiter, des éditeurs, des professeurs particuliers, des services de tutorat ou d'aide aux études, des établissements de préparation à l'enseignement supérieur, des fournisseurs de services de planification des programmes d'études, des gestionnaires de plateformes pédagogiques en ligne, et des développeurs d'applications, moyennant paiement ou non, est interdite et constitue une infraction pénale.

Pour plus d'informations sur la procédure à suivre pour obtenir une autorisation écrite sous la forme d'une licence, rendez-vous à l'adresse <https://ibo.org/become-an-ib-school/ib-publishing/licensing/applying-for-a-license/>.

© Organización del Bachillerato Internacional, 2021

Todos los derechos reservados. No se podrá reproducir ninguna parte de este producto de ninguna forma ni por ningún medio electrónico o mecánico, incluidos los sistemas de almacenamiento y recuperación de información, sin la previa autorización por escrito del IB. Además, la licencia vinculada a este producto prohíbe el uso de todo archivo o fragmento seleccionado de este producto. El uso por parte de terceros —lo que incluye, a título enunciativo, editoriales, profesores particulares, servicios de apoyo académico o ayuda para el estudio, colegios preparatorios, desarrolladores de aplicaciones y entidades que presten servicios de planificación curricular u ofrezcan recursos para docentes mediante plataformas digitales—, ya sea incluido en tasas o no, está prohibido y constituye un delito.

En este enlace encontrará más información sobre cómo solicitar una autorización por escrito en forma de licencia: <https://ibo.org/become-an-ib-school/ib-publishing/licensing/applying-for-a-license/>.

# Business management

## Higher level

### Paper 2

Tuesday 26 October 2021 (morning)

1 hour 45 minutes

---

#### Instructions to candidates

- Do not open this examination paper until instructed to do so.
- A clean copy of the **business management formulae sheet** is required for this examination paper.
- Section A: answer one question.
- Section B: answer two questions.
- A calculator is required for this examination paper.
- The maximum mark for this examination paper is **[50 marks]**.

### Section A

Answer **one** question from this section.

#### 1. PB Ltd

Phoebe Bowen, a young entrepreneur, started her own clothing company, *PB Ltd*, on 1 January 2019. On the same day, *PB Ltd* purchased fixed assets for \$20 000. The estimated useful life of the assets is six years.

At the end of 2020, Phoebe’s newly appointed accountant said that Phoebe had omitted the depreciation of the firm’s fixed assets from the accounts. **Table 1** shows selected financial information from the final accounts of *PB Ltd* for the years ending 31 December 2019 and 31 December 2020.

**Table 1: Selected financial information from the final accounts of *PB Ltd* for years ending 31 December 2019 and 31 December 2020 (all figures in \$000s)**

	2019	2020
Expenses	7	9
Cash	1	1.5
Share capital	6	6
Sales revenue	40	45
Short-term loans	–	0.65
Long-term loans	1	2
Fixed assets	20	20
Tax paid	1.5	1.7
Accumulated retained profit	6	12.9
Stock and debtors	3	2
Dividends paid	1	1.4
Cost of goods sold	24	25
Interest paid	0.5	1

- (a) Describe **one** disadvantage of using the reducing/declining balance method of depreciation. [2]
- (b) (i) Using the reducing/declining balance method of depreciation, calculate *PB Ltd*’s annual depreciation of fixed assets for 2019 and 2020. Use 5% as the depreciation rate (*show all your working*). [3]
- (ii) Using the selected financial information in **Table 1** and your answer from (b)(i), prepare a balance sheet for *PB Ltd* for 31 December 2020. [5]

**2. Sock Paradise (SP)**

After conducting primary market research, Pam opened *Sock Paradise (SP)*, which sells colourful socks. *SP* operates a retail stall in a large department store and sells online through its own website.

**Table 2** shows selected financial data for *SP* for 2020.

**Table 2: Selected financial data for *SP* for 2020**

Annual fixed costs of stall rental and operation	\$50 000
Annual fixed costs of operating the e-commerce site	\$10 000
Variable costs per pair of socks	\$4.00
Average sales price per pair of socks	\$9.00
Total sales	15 000 pairs of socks

At the end of 2020, the department store told Pam that it would increase rent by \$14 000 per year starting on 1 January 2021. Pam forecast total sales for 2021 as 18 000 pairs of socks; other costs and prices were forecast to remain unchanged.

- (a) State **two** methods of primary market research. [2]
- (b) Using the selected financial data in **Table 2**, calculate for *SP* for 2020:
  - (i) the break-even level of output (*show all your working*); [2]
  - (ii) the margin of safety (*show all your working*); [2]
  - (iii) the net profit (*show all your working*). [2]
- (c) Explain how the impact of the increase in rent **and** the forecast increase in sales in 2021 could affect *SP*'s profitability. [2]

## Section B

Answer **two** questions from this section.

### 3. Healthy Nation (HN)

*Healthy Nation (HN)* is a pharmaceutical organization that used to operate in the public sector, selling its medicines (drugs) to hospitals at very low prices.

With increasing government funding over several years, *HN* increased the number of employees in its Research and Development Department, which was staffed by scientists, and in the Manufacturing Department. However, both departments were inflexible and inefficient. Resources were significantly under-utilized, and innovation limited.

*HN*'s structure used to be hierarchical, with a very long chain of command and channels of communication. Senior management made the decisions and set the production levels. Consequently, the scientists in the Research and Development Department never developed decision-making skills, and development of new medicines was slow. In 2021, after many years of losses, the government sold *HN* to a profit-maximizing global pharmaceutical manufacturer, *Global Pharma (GP)*.

To improve productivity, efficiency and flexibility, the management of *GP* reorganized *HN* as a shamrock organization by:

- outsourcing the production function to a well-known manufacturer
- retaining the Research and Development Department, along with its scientists and support staff, and employing additional staff when required.

In addition, two major changes were announced:

- Establishing performance-related pay for the scientists based on a new appraisal system to increase productivity levels.
- Using an expensive external company to provide cognitive training to the scientists to develop innovative decision-making and improve teamwork.

These changes have proved to be very unpopular, and the scientists in particular are resisting the changes and the short time frame in which they will be implemented.

- (a) Define the term *public sector*. [2]
- (b) Explain **one** benefit **and one** limitation for *GP* resulting from the implementation of the shamrock organization structure for *HN*. [4]
- (c) Explain **one** advantage **and one** disadvantage for *GP* resulting from the introduction of cognitive training for *HN*'s scientists. [4]
- (d) Discuss **two** human resource strategies that *GP* could use to reduce the scientists' resistance to the changes. [10]

#### 4. Smith's Foods Ltd (SF)

Charles Smith and seven friends started a private limited company, *Smith's Foods Ltd (SF)*, to produce ready-made healthy meals for people with diabetes\*. Using a cost-plus (mark-up) pricing strategy, *SF's* mission is to make inexpensive, widely available meals that help diabetics manage their carbohydrate intake accurately.

Despite reliance on inexpensive social media marketing, *SF* grew rapidly. Due to this rapid growth, however, the quality of its products deteriorated, and a number of its meals were found to contain different quantities of carbohydrate than those stated on the packaging. Negative comments appeared on *SF's* Instagram page. Charles responded quickly to reassure customers and offered refunds. *SF's* response led to the company receiving an industry award for ethical behaviour.

Charles introduced flow production to reduce the cost of *SF's* meals, which changed *SF's* scale of operations and increased its gearing ratio. However, Charles had little business experience of using flow production and problems emerged.

External stakeholders began to look into *SF's* operations. One supermarket chain, *Good Foods (GF)*, contacted Charles and offered to take over *SF*, keeping Charles on the board of directors. This takeover would allow *SF's* meals to be produced at a lower cost and reach a wider target market. *GF* would also finance research and development into new meals with more carefully controlled carbohydrate levels.

However, *SF* would close. Negative publicity would be considerable. The remaining shareholders have threatened to launch a new business, creating their own brand of meals for people with diabetes in direct competition with *GF*.

---

\* diabetes: a medical condition that causes a person's blood sugar level to become too high. People with diabetes need to be mindful of the amount of carbohydrates (which includes sugar) they include in their diet.

- (a) Define the term *cost-plus (mark-up) pricing strategy*. [2]
- (b) Explain **two** benefits for *SF* of using social media marketing. [4]
- (c) Explain **one** benefit **and one** cost to *SF* of using a flow production method. [4]
- (d) Discuss whether Charles should accept *GF's* offer of a takeover. [10]

## 5. Office Supplies (OS)

*Office Supplies (OS)* is a family-owned private limited company that, for 40 years, has operated three retail office supply stores in a small city. OS offers a wide range of office products (such as computer paper and stationery) and office machinery (such as computers and printers). When each store opened, OS purchased the buildings using long-term loan capital. OS’s objective is to have enough profit to finance the company’s working capital and pay annual dividends.

OS has no clear marketing strategy. Traditionally, OS competed with several other office supply stores operating in the same city. The market was not competitive, however, and most customers went to the nearest office supply store. OS’s prices were comparable to those of other retail office supply stores, and the company did little promotion.

Nationally, the retail office supply store industry is declining. Many retail office supply stores have had to close, and new competitors have entered the market, many of which benefit from some or all of the following:

- Specialization in particular office products
- Economies of scale leading to more competitive prices
- Greater convenience, including e-commerce with door-to-door delivery

Like other physical retail stores, OS has seen its sales decline. Gross and net profit margins have fallen. Last year, to ensure enough funds for capital expenditure and revenue expenditure, OS’s board of directors chose not to pay dividends. OS also anticipates the need for additional finance next year. OS’s board is considering changes to the company’s marketing mix in response to new competitors.

- (a) State **two** marketing objectives that a company might have. [2]
- (b) With reference to OS, explain **one** advantage **and one** disadvantage of operating as a private limited company. [4]
- (c) With reference to OS, explain the difference between capital expenditure and revenue expenditure. [4]
- (d) Discuss possible changes to any **two** elements of OS’s marketing mix. [10]
- 

### References: