

Markscheme

May 2023

Business management

Higher level

Paper 1

17 pages

© International Baccalaureate Organization 2023

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 2023

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, 2023

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/>.

The markbands and assessment criteria on pages 3–6 should be used where indicated in the markscheme.

Section A			Level descriptor
Q1 (b)	Q2 (b)	Q3 (b)	
Marks			
0			
1–2			<ul style="list-style-type: none"> • Little knowledge and understanding of relevant issues and business management tools (where applicable), techniques and theories. • Little use of business management terminology. • Little reference to the stimulus material.
3–4			<ul style="list-style-type: none"> • A description or partial analysis of some relevant issues with some use of business management tools (where applicable), techniques and theories. • Some use of appropriate terminology. • Some reference to the stimulus material that goes beyond the name of a person(s) and/or the name of the organization. • At the lower end of the markband, responses are mainly theoretical.
5–6			<ul style="list-style-type: none"> • An analysis of the relevant issues with good use of business management tools (where applicable), techniques and theories. • Use of appropriate terminology throughout the response. • Effective use of the stimulus material.

Section B Q4 (d)	Level descriptor
Marks	
0	The work does not reach a standard described by the descriptors below.
1–2	<ul style="list-style-type: none"> • Little understanding of the demands of the question. • Few business management tools (where applicable), techniques and theory are explained or applied and business management terminology is lacking. • Little reference to the stimulus material.
3–4	<ul style="list-style-type: none"> • Some understanding of the demands of the question. • Some relevant business management tools (where applicable), techniques and theories are explained or applied, and some appropriate terminology is used. • Some reference to the stimulus material but often not going beyond the name of a person(s) and/or the name of the organization.
5–6	<ul style="list-style-type: none"> • Understanding of most of the demands of the question. • Relevant business management tools (where applicable), techniques and theories are explained and applied, and appropriate terminology is used most of the time. • Some reference to the stimulus material that goes beyond the name of a person(s) and/or the name of the organization. • Some evidence of a balanced response. • Some judgments are relevant but not substantiated.
7–8	<ul style="list-style-type: none"> • Good understanding of the demands of the question. • Relevant business management tools (where applicable), techniques and theories are explained and applied well, and appropriate terminology is used. • Good reference to the stimulus material. • Good evidence of a balanced response. • The judgments are relevant but not always well substantiated.
9–10	<ul style="list-style-type: none"> • Good understanding of the demands of the question, including implications, where relevant. • Relevant business management tools (where applicable), techniques and theories are explained clearly and applied purposefully, and appropriate terminology is used throughout the response. • Effective use of the stimulus material in a way that significantly strengthens the response. • Evidence of balance is consistent throughout the response. • The judgments are relevant and well substantiated.

Section C, question 5**Criterion A: Knowledge and understanding of tools, techniques and theories**

This criterion addresses the extent to which the candidate demonstrates knowledge and understanding of relevant business management tools, techniques and theories, as stated and/or implied by the question. This includes using appropriate business management terminology.

Marks	Level descriptor
0	The work does not reach a standard described by the descriptors below.
1	Superficial knowledge of relevant tools, techniques and theory is demonstrated.
2	Satisfactory knowledge and understanding of relevant tools, techniques and theories is demonstrated.
3	Good knowledge and understanding of relevant tools, techniques and theories is generally demonstrated, though the explanation may lack some depth or breadth.
4	Good knowledge and understanding of relevant tools, techniques and theories is demonstrated.

Criterion B: Application

This criterion addresses the extent to which the candidate is able to apply the relevant business management tools, techniques and theories to the case study organization.

Marks	Level descriptor
0	The work does not reach a standard described by the descriptors below.
1	The relevant business management tools, techniques and theories are connected to the case study organization, but this connection is inappropriate or superficial.
2	The relevant business management tools, techniques and theories are appropriately connected to the case study organization, but this connection is not developed.
3	The relevant business management tools, techniques and theories are generally well applied to explain the situation and issues of the case study organization, though the explanation may lack some depth or breadth. Examples are provided.
4	The relevant business management tools, techniques and theories are well applied to explain the situation and issues of the case study organization. Examples are appropriate and illustrative.

Criterion C: Reasoned arguments

This criterion assesses the extent to which the candidate makes reasoned arguments. This includes making relevant and balanced arguments by, for example, exploring different practices, weighing up their strengths and weaknesses, comparing and contrasting them or considering their implications, depending on the requirements of the question. It also includes justifying the arguments by presenting evidence for the claims made.

Marks	Level descriptor
0	The work does not reach a standard described by the descriptors below.
1	Statements are made but these are superficial.
2	Relevant arguments are made but these are mostly unjustified.
3	Relevant arguments are made and these are mostly justified.
4	Relevant, balanced arguments are made and these are well justified.

Criterion D: Structure

This criterion assesses the extent to which the candidate organizes his or her ideas with clarity, and presents a structured piece of writing comprised of:

- an introduction
- a body
- a conclusion
- fit-for-purpose paragraphs.

Marks	Level descriptor
0	The work does not reach a standard described by the descriptors below.
1	Two or fewer of the structural elements are present, and few ideas are clearly organized.
2	Three of the structural elements are present, or most ideas are clearly organized.
3	Three or four of the structural elements are present, and most ideas are clearly organized.
4	All of the structural elements are present, and ideas are clearly organized.

Criterion E: Individual and societies

This criterion assesses the extent to which the candidate is able to give balanced consideration to the perspectives of a range of relevant stakeholders, including individuals and groups internal and external to the organization.

Marks	Level descriptor
0	The work does not reach a standard described by the descriptors below.
1	One individual or group perspective is considered superficially or inappropriately.
2	One relevant individual or group perspective is considered appropriately, or two relevant individual or group perspectives are considered superficially or inappropriately.
3	At least two relevant individual or group perspectives are considered appropriately.
4	Balanced consideration is given to relevant individual and group perspectives.

Section A

1. (a) Outline **two** disadvantages for SVT's employees of the new flexible-working contract (lines 60–62). **[4]**

Disadvantages include:

- The **employees** would have to **accept change** following many years of operating in an unchanged way.
- The **older employees**, who are mostly rejecting the change, are very **used to working from 8am to 5pm** (line 53).
- The **shift pattern is happening alongside other modernization programmes**. The employees may be objecting to the whole package.
- SVT **lost a significant number of experienced employees** because of this change (25% left (line 63)). Newer staff lost the chance to work with experienced colleagues.
- The employees would have to **change the hours they worked every six months** (line 62). They may not like this pattern.

Accept any other relevant disadvantage

Mark as 2 + 2.

Award [1] for each appropriate disadvantage identified and an additional [1] for a description of how it impacts on the employees of SVT.

Award a maximum of [2] for each disadvantage.

Award a maximum of [4] in total.

- (b) Explain the factors that SVT should consider when deciding on a pricing strategy for the WF15 water purifier (lines 126–131). **[6]**

Factors include:

- Likely market demand—**Demand could be very high** given the ease of using the product in different situations (a few hours of sunlight) (line 124).
- Production and other costs—the WF15 had to **meet strict criteria in terms of cost** suggesting it is relatively inexpensive.
- SVT's objectives—should it be a **not-for-profit product?** (lines 127–128).
- Directors—some feel that the product should be **subsidized to make it affordable**. Not all directors feel this though (lines 128–129).
- Other stakeholders such as **shareholders may wish to maximize profits**.
- **Competitors prices**—SVT may wish to examine the price charged by competitors to establish a benchmark price for themselves.

Accept any other relevant factor and explanation.

Marks should be allocated according to the markbands on page 3.

Award a maximum of [3] for a theoretical answer

Award a maximum of [4] for limiting the explanation to only one factor.

Award a maximum of [5] if the explanation is mainly descriptive, but in context.

Award a maximum of [6] for a developed answer in context

2. (a) Outline **one** advantage **and one** disadvantage for SVT of Ariadne’s leadership style (lines 21–26). [4]

Ariadne displays an autocratic leadership style.

Advantages:

- This may have led to **higher productivity per employee** (lines 23–24).
- **Ariadne** is the **sole decision-maker** meaning that decisions are made **quickly to respond** to quickly unexpected changes. This fits in with the directors having operational and tactical authority (line 15).

Disadvantages:

- Ariadne often has **different priorities**, and this has **led to conflict with Yannick** (lines 25–26).
- Ariadne can be **inflexible**.
- Ariadne can **make poor decisions** leading to weaker performance for SVT.

Mark as 2 + 2.

Award [1] for each appropriate advantage/disadvantage identified and an additional [1] for a description of how it impacts on SVT.

Award a maximum of [2] per advantage/disadvantage.

Award a maximum of [4] in total.

- (b) Explain different distribution channels that SVT could use for the WF15 water purifier (lines 132–133). [6]

Distribution channels include:

- SVT could make use of **agents in different countries**. They have no experience of operating in LEDCs and may benefit from using **experts in distribution in those countries** (lines 132–133).
- The lack of use of traditional promotion approaches may have an impact on how the product is distributed. SVT may need very direct approaches to communicate effectively with the potential customer.
- SVT could try a traditional approach to selling the WF15 by using **wholesalers and retailers**. Much will depend on exactly where the product will be sold.
- SVT could sell them through **charities and/or NGO**, and/or those employees who are taking part in the Outreach Programme.
- SVT could sell using aspects of e-commerce/online selling making use of social media.

Accept any other relevant distribution channel and explanation.

Marks should be allocated according to the markbands on page 3.

Award a maximum of [3] for a theoretical answer

Award a maximum of [4] for limiting the explanation to only one distribution channel.

Award a maximum of [5] if the explanation is mainly descriptive, but in context.

Award a maximum of [6] for a developed answer in context.

3. (a) Outline **two** non-financial rewards that *SVT* could have used for the long-serving employees that wanted to leave the company because of the implementation of the flexible-working contract (lines 56–64). **[4]**

Non-financial rewards include:

- Job enrichment
- Job rotation
- Job enlargement
- Empowerment
- Teamwork
- Purpose/the opportunity to make a difference

Accept any reasonable answer.

In the case of *SVT*, they offered a one-time incentive payment to those who agreed to the new contract—a financial reward.

The non-financial rewards listed above could have been considered as alternative approaches, e.g., greater consultation around additional responsibilities / changes to job roles / enhanced use of group or team working etc.

Mark as 2 + 2.

Award [1] for each appropriate non-financial reward identified and an additional [1] for a description of how it impacts on SVT.

Award a maximum of [2] per reward.

Award a maximum of [4] in total.

- (b) With reference to STEEPLE factors, explain changes in the external environment that may have affected SVT (lines 20–21).

[6]

External environment can relate to aspects of Social; Economic; Technical; Political; Environmental; Legal; and Ethical factors (STEEPLE)

- Social—**potable water is now seen as a need**, especially in LEDCs; **short supply of high skilled** and specialized **employees** in the UK (lines 68–69).
- Economic—**recession**; consumer confidence; interest rates etc., all impact on SVT. **Demand for wind turbines** is expected to **grow** (line 80); **market for desalination** is **growing rapidly** (line 39).
- Technical—**innovations in engineering** require SVT to **seek out new methods of production** and to enhance product development.
- Political—**political instability** has led to many issues in poorer countries increasing the demand for SVT's products.
- Environmental—**climate change** has led to **greater need for demand of potable water** in many countries around the world.
- Legal—**safety regulations** may have forced SVT to develop more effective and safer products.
- Ethical—Stakeholders have a strong **CSR approach** leading to the development of the Outreach Programme.

N.B. Only one answer can be accepted in each of the STEEPLE categories e.g only one economic factor can count.

Accept any other relevant external environment factor and explanation.
Marks should be allocated according to the markbands on page 3.

Award a maximum of [3] for a theoretical answer

Award a maximum of [4] for limiting the explanation to only one external factor.

Award a maximum of [5] if the explanation is mainly descriptive, but in context.

Award a maximum of [6] for a developed answer in context.

Section B

4. (a) Define the term *profit centre*. [2]

A **section** of a business where both **costs** and **revenues** can be **identified** and are **recorded**.

N.B. no application required. Do not credit examples.

Candidates are **not** expected to word their definition **exactly** as above.

To gain both marks, answers must make reference to costs and revenues as well as some aspect or section of the business. The "section" is likely to refer to a department, a product, a process, a division etc.

Be careful not to reward a "place" or an "area" unless this is clarified.

Award [1] for a basic definition that conveys partial knowledge and understanding.

Award [2] for a full definition that conveys knowledge and understanding similar to the answer above.

(b) (i) Using the reducing/declining balance method of depreciation, calculate the total depreciation of the automated monitoring equipment after a period of two years (*show all your working*). [2]

Equipment cost \$100m

Value at end first year = 0.8 x 100m = \$80m

Value at end second year = 0.8 x \$80m = \$64m award [1]

Amount of depreciation = \$100m – \$64m = \$36m award [2]

Alternative answer:

Year	Depreciation	Net book value
0	\$0	\$100 000 000
1	\$20 000 000 (\$100 000 000 x 20%)	\$80 000 000
2	\$16 000 000 (\$80 000 000 x 20%)	\$64 000 000
Total depreciation	\$36 000 000	

Award [2] for correct answer, with working and correct units.

Award [1] for a reasonable attempt or absence of working and/or correct units.

Award [1] for the calculation of \$64m for net book value.

Award [1] for an attempt, or for a correct answer that does not include the correct sign (\$).

Where there is no \$ sign in the final answer give benefit of the doubt (BOD) if the \$ sign is used in the working.

Do not reward formula only.

- (ii) With reference to SVT's automated monitoring equipment, explain **one** advantage of using the reducing/declining balance method of depreciation. **[2]**

- This is a **complex piece of technical equipment** (automated monitoring equipment); very **unlikely to deteriorate equally over time**. Even more unlikely to have a useful life of ten years due to **rapidly changing technology so will get close to its residual value early on**.
- It **matches the cost and revenue** of the business, because the higher amount of depreciation provided in the early years is matched against the larger amount of revenue generated by the increased production brought about by the use of the new asset;
- it **provides a more accurate measure of the depreciation compared to the straight-line method**;
- it **lowers the income tax expense in the early years**.

Accept any other relevant advantage.

Award [1] for an appropriate advantage and an additional [1] for an explanation of how that advantage relates to SVT.

*[2] cannot be awarded if the response lacks either explanation **and** / or application.*

There must be some reference to SVT' equipment as well as the advantage of using this method of depreciation.

For example:

*For an identification or a description of an advantage **with or without** application [1].*

*For explanation of an advantage with **no** application [1].*

*For explanation of an advantage **and** application [2].*

- (c) Explain **two** ways in which effective contingency planning at SVT could have prevented the problems experienced in Dalgera. **[4]**

Contingency planning involves:

- identifying potential disasters;
- assessing the likelihood of these disasters occurring;
- reducing the potential impact of the crises;
- planning for the continuous operations of the business;
- developing a post-disaster recovery plan.

Solutions:

- **improve the process of considering possible disasters;**
- develop an action plan for each of these possible scenarios;
- set up improved and **automatic reporting/investigation procedures;**
- monitor, review, update levels of **equipment and other resources;**
- introduce **training** for dealing with crises;
- develop plans for how to return to normal working.

*To award **[4]** there must be some clear understanding of contingency planning in context.*

*Award **[3]** if the answer shows **two** ways that SVT could have prevented the problems without specifically explaining contingency planning.*

Accept any other relevant ways.

Mark as **[2] + **[2]**.**

*Award **[1]** for an appropriate way and an additional **[1]** for an explanation of how that way relates to SVT. Award a maximum of **[2]** for each way.*

***[2]** cannot be awarded if the response lacks either explanation **and** / **or** application.*

For example:

*For an identification or a description of a way **with or without** application **[1]**.*

*For explanation of a way with **no** application **[1]**.*

*For explanation of a way **and** application **[2]**.*

- (d) With reference to SVT, evaluate the opportunities and threats posed by entering international markets.

[10]

Opportunities could include:

- potential for **greater brand image** especially in LEDCs;
- far **greater markets** to tap e.g. Asia;
- **economies of scale**;
- **Asia** has greater **growth potential**;
- possibility of **new locations for manufacturing**;
- **diversification**: an opportunity to spread risks by investing in other countries;
- **enhanced brand image**: SVT can be perceived to be more successful than those that operate in the domestic market (brand prestige and loyalty);
- forming **new business relationships**.

Threats could include:

- when things go wrong, there are **repercussions worldwide**;
- problems partly caused by **lower standards in Dalgera**;
- more **difficult to manage**;
- **social issues** – problems would not have got out of hand in, for example, US, Europe where monitoring by television and society far greater;
- **political challenges**;
- **law challenges**: different countries = different laws;
- fluctuating and **different exchange rates and interest rates**.

Evaluation could relate to an assessment of the importance of the threats and opportunities and the specific impact on SVT. This could be related to specific threats and whether they might have an immediate or longer-term impact.

Accept any other relevant evaluation.

Marks should be allocated according to the mark bands on page 4 with further guidance below.

Theoretical answer or context limited to naming the business or lack of development award a maximum of [4].

Award a maximum of [5] if the explanation is only on opportunities or threats.

Award a maximum of [6] if the explanation only has one threat plus opportunities or one opportunity plus threats.

Award a maximum of [8] if the response is balanced but lacks clear evaluation.

Section C

5. Using the case study and additional information on pages 4 and 5, recommend whether SVT should choose **Option 1** or **Option 2**. [20]

Option 1

Arguments for:

- maintains independence;
- relatively small investment?
- existing field of expertise;
- how does investment of \$120 million relate to return of \$0.5 million per turbine?

Arguments against:

- rather early and rapid expansion;
- after providing the 30 turbines for the new desalination plant, will SVT find new customers to maintain the upgraded capacity? Will they be able to continue selling that quantity of turbines per year?
- the new break-even seems to be very high (40 units). It is 66.66% of the total capacity;

Option 2

Arguments for:

- guarantees availability of new turbines;
- further possible collaboration;
- does ZAZ have new expertise?
- construction costs and risks will be shared.

Arguments against:

- adverse publicity;
- loss of independence;
- must share operation fees;
- may depend on negotiated price for final five years of the project.

Other factors:

- What if they fail to complete the project on time and suffer the delay penalties?
- 30% probability of paying \$40 million and 10% chance of \$80 million.
- The investment is huge in both cases—do they want to do either? [assessment of risk].
- Are there other financial considerations?
- The need to finance any aspect of this investment?
- How good is their forecasting of the data?
- Some of the predictions are 15 + years away.
- Are there external factors (change in the market; technology; etc.) that could change during the life of the project?

Accept any other relevant recommendation.

N.B. if a candidate responds to this question without any reference to the additional stimulus material (the additional material that comes with question 5 in the examination paper), the maximum mark that the candidate can receive under criteria A, B, C, and E (all the criteria except structure) is **[2]** per criterion. Award a maximum of **[12]** overall.

Marks should be allocated according to the assessment criteria on pages 7-8 with further guidance below.

Criterion A: possible theories, management tools and techniques include: Accounting techniques and ratios, interpreting data, Decision Tree, Ansoff, Force Field Analysis (FFA), importance of assumptions, also, possibly, fishbone, Boston Consulting Group (BCG) matrix, marketing issues (market research, 4Ps), HRM/management issues (leadership, motivation), SWOT (if used with a sense of purpose).

For **[4]**: Tools, techniques and theory understood and developed well with some relevance to the additional stimulus material.

For **[2]**: some understanding of at least two tools, techniques or theories, but not developed.

Criterion B: the tools, techniques, theories and stimulus applied to the decision. Application will be judged by the use of the stimulus material.

Remember, understanding has been rewarded in Criterion A. So B is about USE.

For **[4]**: relevant tools, techniques and theories are applied well to the case study context and additional stimulus material, the application is convincing and relevant.

For **[2]**: some limited context/application but not developed. Use of tools limits candidate's ability to make reasoned arguments.

Criterion C: options discussed in balanced way, **conclusions drawn** and recommendation made/supported.

For **[4]**: there needs to be a clear recommendation supported by the data.

For **[2]**: some limited arguments but not justified. Or limited analysis (eg one-sided argument) but candidate arrives/draws a reasoned conclusion.

Criterion D: Structure: *this criterion assesses the extent to which the candidate organizes his or her ideas with clarity, and presents a structured piece of writing comprised of:*

- *an introduction*
- *a concluding paragraph. Please note this can be different from the concept of a conclusion/recommendation in Criterion C. D can be rewarded without a recommendation.*
- *fit-for-purpose paragraphs. This means: not too long, each focused on distinct issues;*
- *logical structure. This means whether there is a clear flow to guide the reader through the discussion, how the paragraphs are sequenced.*

For [4]: all four elements present, clearly organized.

For [2]: no logical structure but other elements present or logical structure with other elements missing.

Criterion E: Stakeholders:

- *individuals: SVT directors, production director;*
- *groups: foreign government, the board of directors, competitors, ZAZ.*

*For [4]: individual(s) **and** group(s) are considered in a balanced way. i.e needs one or more of both individuals and groups developed.*

*For [2]: one individual or one group considered appropriately, or several individuals **and/or** groups considered superficially.*

Award [0] if no stakeholders are considered.