



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 written permission from the IB.

Additionally, the license tied with this product prohibits commercial 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, is not permitted and is subject to the IB's prior written consent via a license. More information on how to request a license can be obtained from <http://www.ibo.org/contact-the-ib/media-inquiries/for-publishers/guidance-for-third-party-publishers-and-providers/how-to-apply-for-a-license>.

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 de l'IB.

De plus, la licence associée à ce produit interdit toute utilisation commerciale 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, n'est pas autorisée et est soumise au consentement écrit préalable de l'IB par l'intermédiaire d'une licence. Pour plus d'informations sur la procédure à suivre pour demander une licence, rendez-vous à l'adresse <http://www.ibo.org/fr/contact-the-ib/media-inquiries/for-publishers/guidance-for-third-party-publishers-and-providers/how-to-apply-for-a-license>.

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 que medie la autorización escrita del IB.

Además, la licencia vinculada a este producto prohíbe el uso con fines comerciales 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— no está permitido y estará sujeto al otorgamiento previo de una licencia escrita por parte del IB. En este enlace encontrará más información sobre cómo solicitar una licencia: <http://www.ibo.org/es/contact-the-ib/media-inquiries/for-publishers/guidance-for-third-party-publishers-and-providers/how-to-apply-for-a-license>.

Business management
Standard level
Paper 1

Friday 3 May 2019 (afternoon)

1 hour 15 minutes

Instructions to candidates

- Do not open this examination paper until instructed to do so.
- A clean copy of the **business management case study** is required for this examination paper.
- Read the case study carefully.
- A clean copy of the **business management formulae sheet** is required for this examination paper.
- Section A: answer two questions.
- Section B: answer question 4.
- A calculator is required for this examination paper.
- The maximum mark for this examination paper is **[40 marks]**.

Blank page

Section A

Answer **two** questions from this section.

1. (a) With reference to *RDM*, describe how changes in operations management altered its relationship with **two** other business functions. [4]
- (b) Explain how *RDM*'s transformation of its manufacturing process from traditional mass production to highly automated production affected the interests of internal stakeholders. [6]
2. (a) With reference to *RDM*, outline **one** advantage **and one** disadvantage of Jan's leadership style (lines 88–89). [4]
- (b) Explain how innovation at *RDM* may have influenced their marketing practices. [6]
3. (a) Describe **two** changes in the external environment that have affected *RDM*. [4]
- (b) Explain how the methods used to motivate employees could have changed when *RDM* transformed from traditional mass production to highly automated production [6]

Section B

Answer the following question.

4. While identifying a location for the new factory, *Zylstra Industries (ZI)*, a large manufacturing company located not far from Location A, presented *RDM* with another possibility: a strategic alliance. Thus, *RDM* have two options to consider.

Option 1: Purchase land and build a new automated factory. The potential location is summarized in **Table 1**.

Table 1: Information on Location A

	Location A
Cost of land, construction, and \$6 000 000 in equipment	\$64 000 000
Skills of workforce	Low
Access to large markets	Centrally located near highly profitable markets
Expected 5-year profit	\$80 000 000 (\$16 000 000 per year for 5 years)
ARR	X
Payback	Y
Annual payments to mortgage lender if financed with debt	\$2.6 million

Location A is in an economically depressed area of northwestern Europe, where land values nevertheless remain high. Location A has an old industrial tradition with a long tradition of poor industrial/employee relations.

Option 2: A ten-year strategic alliance with *ZI*. *ZI* has proposed that *RDM* uses some of its vacant manufacturing space in exchange for assistance in transforming *ZI*'s manufacturing process into a highly automated one using robots. Twenty *RDM* engineers and computer scientists would:

- transform *ZI*'s current factory into an automated one
- train *ZI* engineers
- monitor the factory for the duration of the strategic alliance.

ZI would pay all capital expenditures and *RDM* would employ the twenty engineers and computer scientists. Average salary and other financial rewards of one highly skilled employee would be \$150 000 per year. In exchange, *RDM* would get free usage of factory floor space. *RDM* would buy its own equipment at a cost of \$6 000 000.

RDM estimates that leasing space similar to what *ZI* is offering would cost \$3 000 000 a year.

[Source: © International Baccalaureate Organization 2019]

(This question continues on the following page)

(Question 4 continued)

- (a) State **two** reasons for selecting a specific location for production. [2]
- (b) Using the information in **Table 1**, calculate for **Location A**:
- (i) the payback period (*show all your working*); [2]
- (ii) the average rate of return (ARR) (*show all your working*). [2]
- (c) Explain **two** types of financial rewards, **other than** salary, that *RDM* might offer its engineers and computer scientists. [4]
- (d) Recommend whether *RDM* should choose **Option 1** or **Option 2**. [10]
-