



# **MARKSCHEME**

**May 2013**

**BUSINESS AND MANAGEMENT**

**Standard Level**

**Paper 1**

17 pages

*This markscheme is **confidential** and for the exclusive use of examiners in this examination session.*

*It is the property of the International Baccalaureate and must **not** be reproduced or distributed to any other person without the authorization of the IB Assessment Centre.*

The markbands on pages 3–4 should be used where indicated in the markscheme.

Section A			Level descriptors
Q1 (c)	Q2 (c)	Q3 (c)	
Marks 0–7			
<b>0</b>			
<b>1–2</b>			<ul style="list-style-type: none"> <li>• Little knowledge and understanding of relevant issues, concepts and theories.</li> <li>• Little use of appropriate terminology.</li> <li>• No reference is made to the information in the case study.</li> </ul>
<b>3–5</b>			<ul style="list-style-type: none"> <li>• A description or partial analysis/examination with relevant knowledge and/or understanding of relevant issues, concepts and theories.</li> <li>• Some use of appropriate terminology.</li> <li>• Some reference is made to the information in the case study, not just to the name of the organization.</li> <li>• At the lower end of the markband responses are mainly theoretical.</li> </ul>
<b>6–7</b>			<ul style="list-style-type: none"> <li>• A balanced analysis/examination with accurate, specific, well-detailed knowledge and understanding of relevant issues, concepts and theories.</li> <li>• An analysis/examination that uses appropriate terminology throughout the response.</li> <li>• Explicit references are made to the information in the case study.</li> </ul>

Section B	Level descriptors
Q4 (d)	
Marks 0–8	
<b>0</b>	<ul style="list-style-type: none"> <li>• No knowledge or understanding of relevant issues, concepts and theories.</li> <li>• No use of appropriate terminology.</li> </ul>
<b>1–2</b>	<ul style="list-style-type: none"> <li>• Little knowledge and understanding of relevant issues, concepts and theories.</li> <li>• Little use of appropriate terminology.</li> <li>• No evidence of judgments and/or conclusions.</li> <li>• No reference is made to the information in the case study.</li> </ul>
<b>3–4</b>	<ul style="list-style-type: none"> <li>• A description with some knowledge and/or understanding of relevant issues, concepts and theories.</li> <li>• Some use of appropriate terminology.</li> <li>• No evidence of judgments and/or conclusions.</li> <li>• Some reference is made to the information in the case study, not just to the name of the organization.</li> <li>• The response is mainly theoretical.</li> </ul>
<b>5–6</b>	<ul style="list-style-type: none"> <li>• A response with relevant knowledge and understanding of relevant issues, concepts and theories.</li> <li>• A response that uses relevant and appropriate terminology.</li> <li>• Evidence of judgments and/or conclusions that are little more than unsubstantiated statements that has balanced analysis and demonstrates understanding.</li> <li>• Explicit references to the information in the case study are made at places in the response.</li> </ul>
<b>7–8</b>	<ul style="list-style-type: none"> <li>• A response with accurate, specific, well-detailed knowledge and understanding of relevant issues, concepts and theories.</li> <li>• A response that uses appropriate terminology competently throughout the response.</li> <li>• A response that includes judgments and/or conclusions that is well supported and underpinned by a balanced analysis.</li> <li>• Explicit references to the information in the case study are made throughout the response.</li> </ul>

**SECTION A**

**1. (a) Define the following terms:**

**(i) regional trading bloc (line 30)**

**[2 marks]**

A regional trading bloc is “an organization of countries which have formed economic alliances for mutual benefit” (Clark, P. *et al.*, 2009, *Business and Management Course Companion*, page 391, Glasgow, U.K., Oxford University Press) *eg* CARICOM (in the Caribbean Community), EU (European Union). Regional trading blocks typically have some type of written agreement (between states, regions, or countries) whereby rules regarding trade are specified (such as reducing barriers between participating states, regions, or countries).

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

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

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

For **only** a relevant example **or** application to the stimulus award **[1 mark]**.

**(ii) corporate social responsibility (lines 88–89).**

**[2 marks]**

Corporate social responsibility is a voluntary approach by businesses that recognises they have an obligation to assess and take responsibility for the organizations effects on the environment and on social welfare. A socially responsible business incorporates the interests of various stakeholders in a way which is beneficial and correct (“right”) according to societal values, *eg* a socially responsible ball bearing business will manufacture its products in a way that limits pollution in the vicinity of its factories (which is not the case of *RDB*). Socially responsible businesses often go beyond what is required by law.

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

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

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

For **only** a relevant example **or** application to the stimulus award **[1 mark]**.

**(b) Explain *two* reasons why innovation is important for *RDB*. [4 marks]**

Innovation is important for *RDB* for several reasons:

- As mentioned at the start of the case study, the market size of the ball bearing industry keeps increasing. It is a very dynamic industry (as exemplified by the fact that there are ball bearings in fighter jets and space shuttles); with the development of new materials (lighter and stronger) and of new technologies (especially “green” technologies), there is a need to keep innovating.
- To remain competitive: if *RDB* fails to innovate, it will lose its market share and maybe its reputation. *RDB* has successfully overcome several competitive challenges (eg against *UAB* and *FIB* in the 1930s, or against Japanese companies after the second world war) but sustaining a competitive advantage is key to any business strategy (this is in fact how Michael Porter defines strategy).
- To attract potential customers: if *RDB* is to widen its pools of customers (not just from the manufacturing community but also from the design community), it may need to offer slightly different types of ball bearings; R&D are essential in terms of innovation, which is why Anna wants to invest in that part of *RDB*'s activities.
- Innovation is required to save energy, which was *RDB*'s main aim and was a key element of the company's credentials as a ‘green’ business.

Accept any other relevant reason and explanation.

**Mark as 2 + 2.**

Award [1 mark] for each relevant and correct reason identified and [1 mark] for an explanation of that reason up to a maximum of [2 marks].

**(c) Anna Holstein believes that “the marketing department should start carrying out market research” (lines 114–115). Analyse the roles that primary and secondary research could play for *RDB*. [7 marks]**

Market research could play several roles:

- Primary market research could help *RDB*'s marketing department find out more precisely from their existing customers what they need and want (the case study implicitly suggests that *RDB* has followed a product-orientation marketing strategy as opposed to a market orientation one). One of the tasks of the “engineers-turned-salesmen” could be to carry out primary research (eg through interviews) to feedback to the R&D department about ways in which *RDB* can produce competitive ball bearings.
- Secondary market research could help *RDB*'s marketing department understand the current demand for ball bearings and trends in the market; it would offer a background picture, including an analysis of existing products offered by *RDB*'s competitors. This could provide useful indications to the R&D department about the directions in which they should develop new products (for example, greener ball bearings, or ball bearings adapted to the needs of the design community).

Accept any other relevant analysis.

Candidates are **not** expected to refer to all the above points for full marks, but their analysis must be balanced in order to reach the top markband. This balance could be about primary *vs* secondary research, or it could be articulated in terms of supply *vs* demand, or product orientation *vs* market orientation.

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

2. (a) Using a SWOT analysis framework, identify *two* weaknesses and *two* threats to *RDB*. *[4 marks]*

*RDB* weaknesses could include the following:

- senior management does not always pay attention to some warning signals (*eg* the need for maintenance and technological upgrades)
- there are high pollution levels near *RDB* factories (which has attracted some environmental campaigners), so they may need to review their operations, especially if they want to enhance their corporate social responsibility and their “green” credentials
- the conflict between father and daughter, the two top figures in the family-owned business, could lead to problems for the company overall
- marketing activities are limited, which is a weakness in any competitive business environment
- no cultural understanding of customers.

*RDB* threats could include the following:

- Demand for ball bearings is slowing down in Europe, whereas growing substantially in countries such as Brazil, China and India. At present, *RDB* is not present in these countries.
- Demographic changes in Europe may eventually undermine Valdemar’s vision of a “happy European family”.
- Global economic interconnectedness: any economic crisis, such as the global banking crisis of 2008 or economic recession in almost any part of the world may affect *RDB*.
- Competition past (*eg* Japanese companies in the 1970s) and present.

*Accept any other relevant weakness/threat.*

**N.B.** The threats must be **explicitly** about external factors (*ie* factors that could be identified through a PEST/STEEPLE analysis); the weaknesses must be internal (*ie* about finance, marketing, leadership *etc*).

**Mark as 2 + 2.**

Award *[1 mark]* for each relevant and correct weakness identified, up to a maximum of *[2 marks]*.

Award *[1 mark]* for each relevant and correct threat identified, up to a maximum of *[2 marks]*.

(b) Using data from the additional information on page 3, calculate *RDB*'s:

(i) return on capital employed (ROCE) in 1965 and 1975.

[2 marks]

$$\text{ROCE} = \frac{\text{Net profit before interest and tax}}{\text{Total capital employed}} \times 100$$

	1965	1975
ROCE	$\frac{22}{121} \times 100 = \mathbf{18.18\%}$	$\frac{34}{203} \times 100 = \mathbf{16.75\%}$

*N.B.* Do not penalize the absence of % sign. Candidates can give their responses to 1 or 2 decimal places.

Award [1 mark] for each correct answer (no working required), up to a maximum of [2 marks].

Candidates should **not** be awarded any marks merely for writing down a formula (as the formula is provided).

(ii) stock turnover in 1965 and 1975.

[2 marks]

Stock turnover is calculated in one of two ways:

**Method 1:**  $\frac{\text{Cost of goods sold}}{\text{Average stock}}$   
 = number of times stock turned over in a year

or

**Method 2:**  $\frac{\text{Average stock}}{\text{Cost of goods sold}} \times 365$   
 = stock turnover in days

COGS = Sales revenue – gross profit

For 1965 COGS = 113 – 35 = 78

For 1975 COGS = 194 – 56 = 138



In the absence of an average stock figure being provided, or in the absence of two consecutive years' figures, candidates should use the stock figure for the year requested. Thus, stock turnover for *RDB* would be:

	<b>1965</b>	<b>1975</b>
<b>Method 1:</b> Stock turnover (times per year)	$\frac{78}{29} =$ <b>2.69 times per year</b>	$\frac{138}{54} =$ <b>2.56 times per year</b>
<b>Method 2:</b> Stock turnover (in days)	$\frac{29}{78} \times 365 =$ <b>136 days</b>	$\frac{54}{138} \times 365 =$ <b>143 days</b>

*N.B.* Do not penalize the absence of units: times per year or days. Candidates can give their responses to 1 or 2 decimal places when using Method 1.

Award [**1 mark**] for each correct answer (no working required), up to a maximum of [**2 marks**]. If the candidate incorrectly calculates cost of goods sold but otherwise performs the calculations correctly, award [**1 mark**] because of own figure rule (OFR).

Candidates should **not** be awarded any marks merely for writing down a formula (as the formulae are provided).

(c) **Interpret your results from part (b).**

**[7 marks]**

Apply Own Figure Rule (OFR) from calculations made in part (b).

The comparison of the two sets of ratios suggests a company that has experienced a slight deterioration in efficiency between 1965 and 1975. The decrease in ROCE from 18.18% to 16.75% is not a dramatic decline, but it is not a positive indicator. Were ROCE to continue to decline by this amount for another two or three decades (as the case study implies), these minor negative concerns would grow into major concerns about efficiency. The increase in stock turnover is similar. Though the increase in stock turnover from 136 to 143 days is not a huge increase, it is not a positive sign. This ratio means that, on average, raw materials purchased by *RDB* and converted into stock is on the company's books for 136–143 days, between four and five months. Without industry comparisons, it is not possible to fully understand the implications of this length of time.

Nevertheless, this stock situation seems like a long time to hold stock and that implies the company relies on a just-in-case stock control method. As with the ROCE, the increase is relatively minor but nevertheless a worrisome sign. In combination, the two sets of ratios suggest a slippage of the company in terms of efficiency, coming at a time when *RDB* is facing increased competition from foreign competitors (Japanese). One of the major issues facing *RDB* is just as these ratios indicate: a slow deterioration of its situation, one that Valdemar did not fully appreciate and which, by the twenty-first century, had become a much greater problem. Still a profitable company, a smouldering problem was occurring at *RDB* over many decades, and the changes suggested by the changes in these ratios are an indication of it.

If a candidate uses only one of the sets of ratios (for example only ROCE), award a maximum of **[4 marks]**. For **[6–7 marks]**, answers must be balanced, which is to say some recognition that the company is still healthy and profitable even though there are some worrying signs. Also the balance required for higher marks means that both efficiency ratios need to be interpreted.

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

3. (a) Define the following terms:

(i) *retrenchment (line 133)*

[2 marks]

Retrenchment occurs when a business cuts its workforce (by laying-off/redundancy), closing factories / branches and is sometimes called downsizing.

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

*N.B.* Strictly speaking, retrenchment is not necessarily only about HR (as it could imply streamlining production or downsizing a product portfolio, however candidates are only expected to refer to the HR dimension).

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

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

For **only** a relevant example **or** application to the stimulus award [1 mark].

(ii) *commission (line 153).*

[2 marks]

A commission is a form of payment to an agent (*eg* salesperson) often calculated on a percentage basis of sales made.

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

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

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

For **only** a relevant example **or** application to the stimulus award [1 mark].

- (b) With reference to *RDB*, distinguish between flow production and job production (*lines 63–66*). *[4 marks]*

Flow production (also called mass production and line production) means producing a standardized product using a continuous flow of production, typically through an assembly line. As mentioned in the case study, *RDB* manufactures its standard-sized ball bearings using a flow production process – this corresponds to the archetypal imagery of the conveyor belt on the shop floor of Fordist megafactories. It is about high volumes *ie* quantity.

Job production, on the other hand, is not about quantity and standardization, but about designing and producing a special product that precisely fits the customer’s requirements; a typical example would be a wedding cake of a particular size and shape, or in the case of *RDB*: “one-off special orders, such as large ball bearing systems for power stations or mines”. The mark-up and the prices are then high, but it is much more expensive and complex to produce, as opposed to flow production.

*[1–2 marks]*

Award *[1 mark]* for an answer that shows some knowledge of flow production and job production. Award *[2 marks]* for an answer that refers to the difference between flow production and job production at a generic, theoretical level.

*[3–4 marks]*

Award *[3 marks]* for an answer that combines “theory” (*ie* definitions) and “practice” (*ie* reference to the case study). Award *[4 marks]* for an answer that fully and clearly distinguishes between flow production and job production with reference to *RDB*.

- (c) **Analyse the advantages and disadvantages for *RDB* of forming “strategic alliances with ball bearing companies in Brazil, China and India” (line 155). [7 marks]**

A strategic alliance is a collaborative agreement between two or more firms to pursue a set of agreed goals, but where the firms remain completely independent organizations. The alliance ends when the goals are achieved.

Advantages:

Demand for ball bearings is growing in Brazil, China and India. The proposed strategic alliances with companies based in these countries will provide cheaper options for *RDB* to sell directly to them by providing access to the markets and local knowledge of their specific cultures and characteristics. This would satisfy Anna’s objective to be closer to customers. *RDB* would be able to share fixed costs, technical knowledge and resources with its strategic partners and would gain access to new distribution channels.

For Valdemar, it means that *RDB* would not need to close or downsize its European megafactories.

Disadvantages:

*RDB* may lose of control over important issues as product quality, operating costs and employees. The *RDB* brand may be damaged by partners who do not meet their high operational standards. In addition finding suitable partners may be time consuming and therefore costly, especially because potential partners are in three different countries in which *RDB* have not operated. There may be language and cultural barriers between *RDB* and its strategic partners and the possibility of conflicting objectives, strategies, corporate values, and ethical standards.

Strategic alliances must be mutually beneficial, typically reducing overall costs (for the companies involved) and better satisfying customers. The strategic partners could probably benefit from *RDB*’s experience and long tradition of manufacturing high quality ball bearings, however *RDB* would have to convince them. With strategic alliances, the businesses remain independent and still compete on some markets, which might not be sustainable for *RDB* in the long term.

*Accept any other relevant analysis.*

Candidates are **not** expected to cover all the above-mentioned points.

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

**SECTION B**

4. (a) **Identify *two* causes and *two* consequences of the possible relocation of *RDB* factories.** *[4 marks]*

Causes could include:

- the market demand for ball bearings is shifting from Europe to countries such as Brazil, China and India
- the current workforce (in the European factories) do not culturally understand their customers in those new markets; they could lose them to competitors that are local or are more culturally-aware
- Anna believes that the sites of production (the factories) should be located closer to the sites of consumption (where customers are)
- the cost of labour is lower in other parts of the world.

Consequences could include:

- relocating would eventually save time (without the delays due to transport, logistics and distribution)
- relocating would eventually save money (without the costs of transport, storage, logistics and distribution)
- relocating would require building/opening new factories
- relocating would require hiring local workers as well as local managers
- relocating would lead to job losses at current factory locations
- relocation could lead to greater profitability.

*Accept any other relevant cause/consequence.*

***N.B.*** The causes must clearly be reasons why *RDB* is considering the relocation; some candidates are likely to mix causes and consequences.

**Mark as 2 + 2.**

Award ***[1 mark]*** for each relevant and correct cause identified, up to a maximum of ***[2 marks]***.

Award ***[1 mark]*** for each relevant and correct consequence identified, up to a maximum of ***[2 marks]***.

- (b) Explain why shortening the working capital cycle would be “an important benefit for *RDB*” (*line 83*). **[4 marks]**

The working capital cycle can be defined as “money tied up in the business and used to finance its day-to-day needs, such as buying raw materials” (Clark, P. *et al.*, 2009, *Business and Management Course Companion*, page 149, Glasgow, U.K., Oxford University Press). In the case of *RDB*, the working capital cycle includes money spent to buy raw materials (*eg steel*) which then becomes (unsold) stock (*eg ball bearings*); when the stock is sold, consumers (debtors) pay for it (sometimes after a slight delay expressed in debtors days) and cash is returned into the business (to pay for new raw materials from suppliers as well as workers’ salaries *etc*). Having factories in Brazil, China and India would mean that the customers based there would receive the goods more quickly (without delays due to distribution and delivery). This could ensure prompter payment which, in turn, could result in a faster purchase of new raw materials to produce more ball bearings (a sort of virtuous circle). Utilizing working capital more effectively is actually an internal source of finance that also enables the company (*RDB* in this case) to manage its stock better. Just as the Japanese companies adopting just-in-time (JIT) production in the 1970s (as mentioned in the case study), *RDB* could also consider that approach in order to further shorten the working capital cycle in its new, flexible factories.

Award **[1 mark]** for a basic answer showing some limited knowledge of the working capital cycle (for example, a definition of “working capital”, but no reference to the cycle that includes raw materials, stock and payment).

Award **[2 marks]** for an answer which shows some knowledge and understanding of the working capital cycle (yet without application to *RDB*).

Award **[3 marks]** for an answer which correctly applies the working capital cycle to *RDB*.

Award **[4 marks]** for an answer which correctly applies the working capital cycle to *RDB* and explains why shortening it would be an important benefit for the company.

- (c) With reference to *RDB*, contrast *one* advantage and *one* disadvantage of operating in the business-to-business (B2B) market. [4 marks]

For *RDB*, advantages of operating in the B2B market include the following:

- *RDB* is a well-established company known for the quality of their ball bearings, so they have a solid reputation with their business customers (they do not need expensive and wide-ranging campaigns to create brand awareness)
- advertising to business customers in the B2B market is more focused than advertising to a very high number of individual customers
- marketing in the B2B market place is likely to be easier, and possibly less expensive than B2C marketing, because *RDB*'s business customers are more likely concerned with the quality and function of its products rather than the image or brand perception of the company. *RDB* has a well-established reputation for quality and so the product may sell itself and minimize the promotional spend.

For *RDB*, disadvantages of operating in the B2B market include the following:

- there may be only a small number of business customers, who consequently may have strong bargaining power (reference to Porter's Five Forces model) so they can negotiate contracts and discounts (which is not in *RDB*'s favour)
- the impact of economic recessions may be more significant on capital goods industries and hence on *RDB*'s orders from these industries
- the marketing channels for B2B are more restricted than for B2C. For example, it is likely to be more difficult to use the social media to promote industrial products, like ball bearings, rather than B2C products, where recommendations and word of mouth promotion can be important.

Accept any other relevant contrasting advantage/disadvantage.

*N.B.* B2B is different to direct marketing and is not about supply chain.

**Mark as 2 + 2.**

Award [1 mark] for each relevant and correct advantage/disadvantage identified and an additional [1 mark] for the development of that point up to a maximum of [2 marks].



(d) Discuss whether Anna Holstein’s “*RDB 2020*” plan is ethical.

[8 marks]

Anna’s plan may be presented as ethical for several reasons. One of the cornerstones of “*RDB 2020*” is “green” engineering (the topic that Anna studied at university); it is about energy efficiency and environmental friendliness. When she started working at *RDB*, implementing “green” approaches to manufacturing was her personal mission – and with “*RDB 2020*” she is turning this personal mission into a corporate strategy. Sustainable development is one of the values underpinning corporate social responsibility and business ethics in general. Anna’s plan aims to ensure the financial success of *RDB* in the 21st century (making sure the family business remains a key player in the ball bearing industry) – this is most ethical for the continuing survival of *RDB* in a global context.

It is however possible to argue that Anna’s plan is unethical, when one considers some of the direct implications, especially about the workers of the European megafactories who are likely to lose their jobs. This actually goes further than just relocating, outsourcing and offshoring: as stressed by Valdemar, *RDB* has had almost a century of strong links with the local communities where it has been based, contributing to the development of “company towns”, working in partnerships with national governments and other stakeholders. Valdemar’s references to a “social contract” and to “a moral obligation to provide jobs in Denmark” are powerful counterparts to Anna’s own ethical views about sustainable development.

*Accept any other relevant discussion.*

It does not matter which conclusion candidates reach at the end of their discussion (*ie* whether they conclude that the plan is ethical or not), however for the top markband there must be a final conclusion.

Marks should be allocated according to the markbands on page 4.