



# Markscheme

**May 2019**

**Business management**

**Standard level**

**Paper 1**

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

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

## Section A

1. (a) With reference to *RDM*, describe how changes in operations management altered its relationship with **two** other business functions. [4]

The shift in operations management from a traditional industrial manufacturing process to an automated process altered its relationship with the following business functions:

- Human resources: *RDM* changed its recruitment from semi-skilled young people who had just completed their education at a local technical secondary school to university graduates with degrees in engineering or computer science. This shift almost certainly necessitated a shift in approaches to leadership and motivation.
- Marketing: In the process of becoming an automated manufacturing process, *RDM* fundamentally changed its marketing mix. Though the decision to shift from kerosene stoves was market driven (declining demand), the automated process allows *RDM* to customize products and make, as in the case of the aluminum water bottles, wholly new products.
- Accounting and Finance: Prior to automation, *RDM* made uniform products on a large scale. Pricing decisions would have been relatively rare – setting a fixed price for a product. Now that the business is making customized products, pricing decisions have to be made with virtually every order, which involves people from the accounting department. Whereas *RDM* had capital expenditures prior to full automation, it also had substantial revenue expenditures in the form of payroll. With automation, the mix of capital versus revenue expenditures shifted in the direction of more capital expenditures. This shift requires significantly different approaches to finance.

*Candidates should name the functions, but they can be implicit.*

**N.B.** *R&D is not a business function.*

*Accept any other relevant changes.*

**Mark as a 2 + 2.**

*Award [1] for an appropriate business function identified and an additional [1] for some description of changes in context. Award a maximum of [2] for each function described.*

- (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]

- Employees – jobs will change, different skills, highly trained engineers and computer scientists.
- Managers – tasks will change, management role different.
- Shareholders – may have sacrificed dividends for investments but reaped benefits later.

*Accept any other relevant internal stakeholders.*

*Marks should be allocated according to the markbands on page 5.*

*Award a maximum of [3] for a theoretical answer, or for only considering one internal stakeholder.*

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

*Award a maximum of **[6]**.*

2. (a) With reference to *RDM*, outline **one** advantage **and one** disadvantage of Jan's leadership style (lines 88–89).

[4]

Jan's leadership style is democratic with hints of laissez faire. A simple assertion that it is democratic or is laissez faire is insufficient for context.

Advantages:

- Employees feel that they have more freedom and more say in the operation of the business.
- Greater sense of autonomy and purpose, which fosters creativity, innovation and teamwork.
- It extends responsibility for decision making to a broader group, increasing the likelihood of employees exercising authority more responsibly. When engineers contact customers to help them with their design, for example, they know that they are representing the business to the outside world and must bear that responsibility.
- Most employees like this leadership style.

Disadvantages:

- It is less orderly than the style of Jan's father. According to the case, despite an atmosphere of "teamwork, diversity, humour and fun," sometimes *RDM* now seems a bit chaotic.
- Decision making can take longer. When Kristián ran the business, he made all the decisions, and he could make them as quickly (or take as long) as he wished.
- Some employees want the type of clearer guidance often found in autocratic management.

Accept any other relevant advantage or disadvantage.

**Mark as a 2 + 2.**

Award [1] for an appropriate advantage and [1] for a disadvantage identified and an additional [1] for application to the points identified. Maximum award: [4].

**N.B.** The case study states the leadership style is democratic, but there are hints of laissez faire. Mention of either "democratic" or "laissez faire" on their own is not enough for an application mark, there needs to be use of the actual context to gain application marks.

- (b) Explain how innovation at *RDM* may have influenced their marketing practices. [6]

Innovation: introduce something or some process that is new.

**Prior to changing to healthcare products, *RDM*'s marketing practices would have been based on:**

For SL and HL:

- Product: a consumer-durable product, a product at the end of its life cycle, a standardized product
- Place: presumably distributed/sold through retailers? A country/market emerging from communist rule
- Promotion: little evidence of a formal marketing mix
- Price: fierce competition, low prices.

Additional for HL:

- Process: unclear
- Physical evidence: relevant?
- People: a "conservative" family business

There was little evidence of a marketing strategy so these items are not coordinated.

**Post innovation marketing practices based on:**

For SL and HL:

- Place: completely different market – the healthcare sector, likely to be sold directly, not through retail
- Product: range of products, customized products, different production processes
- Promotion: now CSR business, implications for marketing. Possibility of marketing using IT
- Price: lower costs, lower prices. Now likely to be individually negotiated. Needs prices for a wider range

Additional for HL:

- People: personal contact with customer
- Process: different way of meeting customer needs, direct contact with customers
- Physical evidence: relevant?

Other issues include change in target market, change in nature of market (growing), creating USP. After innovation, these practices will need to be included in a coordinated marketing mix.

*Accept any other relevant explanation.*

*Marks should be allocated according to the markbands on page 5.*

*Award a maximum of [3] for a theoretical answer or for limiting answer to only considering one market practice.*

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

*Award a maximum of [6].*



3. (a) Describe **two** changes in the external environment that have affected *RDM*. [4]

A number of changes in the external environment are referred to in the stimulus.

Social:

- Changes in how people heat their homes (declining use of kerosene stoves).
- The aging population of Europe increasing demand for medical care.

Technological:

- The Czech Republic's improvement in the country's IT infrastructure
- Changing use of technology by customers eg smartphones (could also be classed as a social factor).

Economic:

- The change in economic system from communist/command to market.
- The integration of the Czech Republic into the broader economy of central and Western Europe.

Ecological:

- Increased use of renewable sources of energy.

Political:

- The change in Czechoslovakia from communist to democratic.

Legal:

- Compliance with EU regulations.

Ethical:

- Growth in CSR since the 1980s.

***N.B.*** No need for candidates to actually mention *STEEPLE* features by name. There may be some other external factors that are relevant eg competition, changes in demand which can also be included.

***Mark as 2 + 2.***

*Accept any other relevant change in the external environment.*

*Award [1] for each change in external environment identified, up to [2], and award [1] additional per external factor identified for appropriate description and application to the stimulus.*

*Maximum award: [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]

Historically:

- *RDM* was a traditional manufacturing firm.
- It was hierarchical, its leadership was autocratic.
- The business had many workers, who were expected to perform relatively simple functions repeatedly.
- In such an environment, motivation typically relies upon paying workers more for high productivity. Workers can in turn accelerate their work if they want to earn more.
- Its motivational approach was, in all likelihood, Taylorist.

After change (to highly automated):

- *RDM* had to hire different types of “workers”: highly trained engineers and computer scientists.
- Employees of this type are typically less motivated by money and more by what Daniel Pink refers to as autonomy, mastery and purpose.
- Employees want the freedom to do jobs without being micro-managed; they want to develop themselves professionally so that they become experts in their field, and they want to know that they are doing more than just making money, that they are connected to some larger purpose.

In the case of *RDM*:

- The changes in leadership style have given employees more autonomy to work with customers to help them.
- The core competency of *RDM* is cutting edge automation and innovation suggests that the engineers and computer scientists themselves must be masters in their area of expertise to stay on the leading edge.
- Candidates are not bound to mentioning either Taylor, Pink or other theorists. They may refer to other appropriate theorists. In their selection, however, they must convey some understanding that most employees now will not be satisfied with traditional money-based incentives alone.

*Accept any other relevant explanation.*

*Marks should be allocated according to the markbands on page 5.*

*Award a maximum of [3] for a theoretical answer or for limiting answer to only the traditional situation or to only the highly automated situation.*

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

*Award a maximum of [6].*

### Section B

4. (a) State **two** reasons for selecting a specific location for production. [2]

Reasons for selecting a specific location of production include:

- Access to resources or raw materials.
- Access to appropriate technologies, including infrastructure.
- Proximity to markets.
- Proximity to suppliers, including suppliers of financial services.
- Proximity to other firms in the industry or related (clustering)
- Access to available appropriate workforce.
- Access to transportation systems.
- Cost of land.

*Accept any other valid reason.*

*Award [1] for each reason identified up to [2]. Maximum award: [2].*

- (b) Using the information in **Table 1**, calculate for **Location A**:

- (i) the payback period (*show all your working*); [2]

\$16.0M per year profits. Cost: \$64.0M.

$$\frac{64}{16} = 4 \text{ years}$$

or

Capital outlay	\$64 000 000
Expected yearly profit	\$16 000 000

Year	Expected profit	Cumulated profit	Difference between capital outlay and cumulated profit
0	–	–	\$64 000 000
1	\$16 000 000	\$16 000 000	\$48 000 000
2	\$16 000 000	\$32 000 000	\$32 000 000
3	\$16 000 000	\$48 000 000	\$16 000 000
4	\$16 000 000	\$64 000 000	0

Answer: exactly 4 years

*Award [1] for the correct workings and [1] for the correct answer with the unit “years”:*

- (ii) the average rate of return (*show all your working*). [2]

$$\text{ARR} = [(80\,000\,000 - 64\,000\,000) \div 5 \div 64\,000\,000] \times 100 = 5\%$$

Award [2] for correct answer with working and with the percentage sign.

Award [1] if the percentage sign is missing,

Do not credit the formula alone.

- (c) Explain **two** types of financial rewards, **other than** salary, that *RDM* might offer its engineers and computer scientists. [4]

Types of financial reward other than salary that *RDM* might offer its engineers and computer scientists include:

- commission – but difficult for these types of employees
- profit-related pay – could be suitable
- performance-related pay (PRP) – but may be difficult to measure performance for individual employees
- employee share ownership scheme – could be suitable
- fringe payments (perks) – such as company car, health care, etc.

Accept any other relevant financial reward.

**Mark as a 2 + 2.**

Award [1] for an appropriate financial reward identified and an additional [1] for explanation and application. Award a maximum of [2] for each financial reward identified, explained, and applied to the stimulus. Maximum award overall: [4].

- (d) Recommend whether *RDM* should choose **Option 1** or **Option 2**. [10]

With Option 1, advantages for *RDM* include:

- Retention of “proprietary” hold on its knowledge of automation and robotics.
- Continuation of operating in a market (medical devices) that is growing and where *RDM* is known and has a solid performance.
- Remaining free from relationships with other companies, which can cause conflicts. Conflicts could emerge with *ZI* operational details. They could also emerge because of conflicts of culture in the two organizations. Jan has worked for years to create a democratic, innovative culture at *RDM*, which could conflict with the more traditional industrial culture at *ZI*.

Disadvantages of Option 1 include:

- Need of capital, which will have to be raised either through issuance of shares or debt.

- If long-term finance comes from share capital, dilution of the ownership of the Radeki de Dovnic family will occur.
- Loss of opportunity to work closely with another company, from which other opportunities may emerge.

*Accept any other relevant advantage or disadvantage of Option 1.*

With Option 2, advantages for *RDM* include:

- Substantially lower capital outlay (\$6.0M versus \$50.0M or \$24.0M).
- On balance, a good location near highly profitable markets.
- Potential opportunities that could occur by forming an alliance with *ZI*. In light of *RDM*'s flexibility in manufacturing, it could easily fill some types of orders for *ZI* or even become one of its suppliers.
- The infusion of innovative ideas from the expansion of *RDM*'s labour force of engineers and computer scientists.

Disadvantages of Option 2 include:

- Loss of proprietary knowledge of automation and robotics, which would be passed on to another company that, after the period of the strategic alliance, could potentially become a competitor.
- The need to expand significantly the recruiting and training function to find twenty more computer scientists and engineers.
- *ZI* will not want new hires from *RDM* overseeing the reconfiguration of its processes, which will require *RDM* to transfer many of its experienced people to the new location. They may not want to do that (affecting motivation) or may refuse to do it (thus leaving *RDM* and taking their expertise elsewhere).
- Potential problems that come from relationships with other companies: conflicts over operation operational details, culture conflict, *etc.*

Accept any other relevant evaluation.

*Marks should be allocated according to the markbands on page 6.*

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