**Cambridge International Examinations**
Cambridge International General Certificate of Secondary Education

**BUSINESS STUDIES** **0450/21**

Paper 2 Case Study **October/November 2016**

MARK SCHEME

Maximum Mark: 80

**Published**

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**1 (a) P & P needs to be efficient. Identify and explain <u>four</u> methods P & P could use to motivate production workers. [8]**

Application [4 × 1] – award one mark for each relevant method for production workers
Analysis [4 × 1] – award one mark for explanation of how each method increases motivation

Award one mark for each relevant method (maximum of four), such as:

- increase wages
- training
- profit sharing
- praise
- piece rate
- employee of the month
- bonus
- change in leadership style
- fringe benefits
- better working conditions
- job rotation
- job enlargement
- setting targets
- promotion

Indicative response:

Introduce piece-rate [ap] because if the production workers produce more paint they will be paid more and so they will be motivated to work harder [an].

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**(b) P & P has developed a new type of paint. Consider the following <u>three</u> factors that will affect the channel of distribution the company will use. Which factor will be the most important when deciding the best channel of distribution? Justify you answer. [12]**

**Relevant points might include:**

| | |
|---|---|
| Where customers are located | • do they deliver paint or do customers purchase from the shops<br>• are they close to the factory – may use direct selling – lower transport costs<br>• may require selling agents is exporting |
| How often the product is purchased | • purchased regularly – may need to be sold in shops near to customers/less often then customers may be willing to travel to large shops to purchase paint<br>• may use wholesaler/middleman if bought less frequently |
| Where competitors sell their products | • may need to sell paint in same retail outlets to competitors – outlet already attracts many customers<br>• don't sell at the same outlets as competitors – may need to reduces price/sales |

Knowledge/Analysis/Evaluation – award up to 10 marks using the levels-based mark scheme below.

| | Knowledge/Analysis/ Evaluation |
|---|---|
| Level 3 | At least 2 × Level 2 +<br>9–10 marks for well justified conclusion as to which factor will be the most important when choosing a channel of distribution and why not the alternative channels.<br><br>7–8 marks for some limited judgement shown in conclusion as to which factor will be the most important when choosing a channel of distribution. |
| Level 2 | 4–6 marks<br>Detailed discussion of the factors affecting the choice of channel of distribution **for the new type of paint**. |
| Level 1 | 1–3 marks<br>Outline the factors affecting the choice of channel of distribution. |

Level 1 – 1 mark for each L1 statement (max of 3 marks) e.g. Where do competitors sell their paint.

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Level 2 – one L2 explanation can gain 4 marks and a further mark can be awarded for each additional L2 explanation (max 6 marks) e.g. Where do competitors sell their paint. They may want to sell paint in large shops where many brands of paint are sold so that when customers are looking for paint they will see their brand of paint as well and be more likely to buy it than if they sell the paint in shops where no other paint is sold. 4 marks for L2 answer).

Level 3 – For L3 to be awarded there need to be at least two L2 marks awarded and then a recommendation which justifies which factor is the most important when selecting the channel of distribution to use.

**Award up to 2 additional marks for relevant application.**

Possible application marks: paint manufacturer; factory; large limited company; imports raw materials; capital city; country X; sells to large retailers; uses batch production; new waterproof paint; target market professional painters; new paint for outside of houses; start exporting paint in 2018.

There may be other examples in context which have not been included here.

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**2 (a) Identify and explain <u>two</u> reasons why P & P might respond to the pressure group and change what the company is doing. [8]**

Knowledge [2 × 1] – award one mark for each reason
Analysis [2 × 1] – award one mark for a relevant explanation for each reason
Application [2 × 2] – award two application marks for each reason

Award one mark for each reason (maximum of two), such as:

- Want to keep a good reputation for being environmentally friendly
- Wants to keep customers from switching to competitors
- Does not want to upset local residents
- Wants to avoid fines or legal action
- Wants to keep a favourable reputation for being a good employer

Award a maximum of three additional marks for **each** explanation – **2 of which must be applied to this context** – of why the business might respond to the pressure group and change what the company is doing.

Indicative response:

To not lose customers who may buy from competitors if they are against businesses polluting the environment (k). The pollution affects a lot of people such as fishermen (ap) and may mean there are a greater number of people lobbying the government for the company to reduce pollution put into the river (ap). The more people affected then the more effective the pressure group and the more likely they are to change to another company if P & P do not change the way they produce paint (an).

Possible application marks: the Government of country X; paint manufacturer; large limited company; large factory next to a river; pollution; waste; dumping in the river; makes tins (cans) of paint; sells to large retailers; 150 production workers; employees live near to the factory; details of two options outlined in Appendix 2; details of pollution caused by paint production outlined in Appendix 3.

There may be other examples in context which have not been included here.

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**(b) P & P production results in external costs as outlined in Appendix 3. Consider the external costs and external benefits of the production of paint by P & P. Recommend whether the Government should take any action. Justify your answer. (12)**

**Relevant points might include:**

| | |
|---|---|
| External costs | Pollution – waste put into river makes children ill, kills fish, people can no longer catch their own fish, have to buy fish now – no clean water |
| External benefits | Provides jobs; increased sales for fish sellers; taxes paid to government |

Knowledge/Analysis/Evaluation – award up to 10 marks using the levels-based mark scheme below.

| | Knowledge/Analysis/ Evaluation |
|---|---|
| Level 3 | At least 2 × Level 2 +<br>9–10 marks for well justified recommendation as to whether or not the government should take any action.<br><br>7–8 marks for some limited judgement shown in recommendation as to whether or not the government should take any action. |
| Level 2 | 4–6 mark<br>Detailed discussion of external costs and benefits on third parties. |
| Level 1 | 1–3 marks<br>Outline of external costs and benefits. |

Level 1 – 1 mark for each L1 statement (max of 3 marks) e.g. The company puts waste products into the river,

Level 2 – one L2 explanation can gain 4 marks and a further mark can be awarded for each additional L2 explanation (max 6 marks) e.g. The company puts waste products into the river and this kills the fish leading to local people have to increase their spending on food which leaves them less to spend on other products. (4 marks for L2 answer plus one application mark for mentioning catching fish from the river).

Level 3 – For L3 to be awarded there need to be at least two L2 marks awarded and then a recommendation whether the government should introduce regulations on the activities of this company.

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**Award up to 2 additional marks for relevant application.**

Possible application marks: paint manufacturer; large limited company; imports raw materials; large factory next to a river; makes tins (cans) of paint; pressure groups; sells to large retailers; uses batch production; 150 production workers; employees live near to the factory; details of two options outlined in Appendix 2; details of pollution caused by paint production outlined in Appendix 3. No credit for paint but ok for pollution.

There may be other examples in context which have not been included here.

**3 (a) P & P has decided to use batch production to produce the new paint. Identify and explain <u>two</u> factors which may have influenced this decision. (8)**

Knowledge [2 × 1] – award one mark for each relevant factor
Analysis [2 × 1] – award one mark for a relevant explanation for each factor
Application [2 × 2] – award two application marks for each factor

Award one mark for each relevant factor (maximum of two), such as:

- Size of the output/ level of demand
- Various styles of product made
- Easier/quicker to respond to changes in demand
- Not enough capital to use capital-intensive methods

Award a maximum of three additional marks for **each** explanation – **2 of which must be applied to this context** – of the factor which may have influenced the decision to use batch production.

Indicative response:

Size of the output [k] as if a large output is not required then flow production will not be used as too many products will be produced (an). Paint has many colours and types and so only a certain quantity of one type will be needed (ap). P & P will produce a certain amount of, for example bathroom paint and then a certain amount of kitchen paint because the demand will not be high for all types of paint (ap).

Possible application marks: different colours of paint; paint manufacturer; paint tins; large limited company; sells to large retailers; 150 production workers; employees live near to the factory; paid using time-rate and no fringe benefits; new waterproof paint; new machinery/equipment to make the paint; details of two options outlined in Appendix 2.

There may be other examples in context which have not been included here.

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**(b) Consider the <u>two</u> options outlined in Appendix 2 for increasing the output of paint. Recommend which option the directors should choose. Use the cost data in Appendix 2 to help justify your answer. (12)**

**Relevant points might include:**

Option A – \$150 000 × 10% = cost of \$15 000 interest per year.
Option B – \$75 000 × 10% = cost of \$7 500 interest / yr plus \$10 000 = \$17 500 / year.
Option A land cost + factory + machinery = \$150 000 (L1)
Option B land cost + lease = \$85 000 (L1)
Option B will be \$72 500 cheaper in the first year (L2)

| | Option A | Option B |
|---|---|---|
| *Output* | *200 000 (appendix 2)* | *102 500 (appendix 2)* |
| *Cost* | *\$100 000 (appendix 2)* | *\$75 000 (appendix 2)* |
| *Factory + machinery* | *\$50 000 (appendix 2)* | |
| *Lease* | | *\$10 000 (appendix 2)* |
| Interest paid | \$15 000 (L2) | \$7 500 (L2) |
| Total cost in the first year | \$165 000 (L2) | \$92 500 (L2) |
| Cost per tin | \$0.83 (L2) | \$0.90 (L2) |

Knowledge/Analysis/Evaluation – award up to 10 marks using the levels-based mark scheme below.

| | Knowledge/Analysis/ Evaluation |
|---|---|
| Level 3 | At least 2 × Level 2 +<br>9–10 marks for well justified recommendation as to the best option to choose compared to the alternative option.<br><br>7–8 marks for some limited judgement shown in recommendation as to the best option to choose. |
| Level 2 | 4–6 marks<br>Option A and B discussed including calculation of costs. |
| Level 1 | 1–3 marks<br>Option A and B outlined including comparison of costs/use of cost information. |

Level 1 – 1 mark for each L1 statement (max of 3 marks) e.g. Option A is more expensive than Option B

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Level 2 – 1 × L2 explanation can gain 4 marks and a further mark can be awarded for each additional L2 explanation (Max 6 marks). Option A is more expensive than Option B but when calculating the costs per tin then Option A is cheaper at $0.83 per tin compared to Option B of $0.90 per tin. (5 marks)

Level 3 – For L3 to be awarded there need to be at least two L2 marks awarded and then a recommendation which justifies which is the best option to choose.

**Award up to 2 additional marks for relevant application.**

Possible application marks: paint manufacturer; large limited company; imports raw materials; large factory next to a river; uses batch production; 150 production workers; start exporting paint in 2018; details of option 1 – 200 000 tins of paint, $100 000 land cost, $50 000 factory and machinery, interest rate of 10% ; details of option 2 – 102 500 tins of paint, $75 000 extension cost, $10 000 lease, interest rate of 10%

There may be other examples in context which have not been included here.

**4 (a) Identify and explain <u>two</u> reasons why added value is important to P & P. (8)**

Knowledge [2 × 1] – award one mark for each relevant reason
Analysis [2 × 1] – award one mark for a relevant explanation for each reason
Application [2 × 2] – award two application marks for each reason

**Relevant points might include:**

Award one mark for each reason (maximum of two), such as:

- Allows costs to be paid
- Ensures a profit is made
- Prices could be increased

Award a maximum of three additional marks for **each** explanation – **2 of which must be applied to this context** – of the reason why added value is important.

Indicative response:

Allows costs to be paid (k) as wages and other factory costs are paid out of the revenue from sales of paint (ap) and the price of paint is higher than the total costs of producing it (ap). This means that P & P will make a profit (an).

Possible application marks: paint manufacturer; large limited company; imports raw materials; makes tins (cans) of paint; sells to large retailers; uses batch production; 150 production workers; new waterproof paint; target market professional painters; new paint for outside of houses; start exporting paint in 2018; increase in imports of paint.

There may be other examples in context which have not been included here.

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**(b) P & P is planning to start selling its products in other countries by 2018. Consider each of the <u>three</u> following changes the company could make. Which one of these changes will be most helpful in selling products to other countries? Justify your answer. (12)**

**Relevant points might include:**

| | Advantages | Disadvantages |
|---|---|---|
| Take over a retail business in one of the other countries | Will own many outlets to sell their paint | Expensive to buy shares in the other business |
| Change to a public limited company to raise additional capital | So they can sell shares to the public<br>Pay additional costs of exporting/expanding | Accounts are public and may be able to be taken over |
| Form joint ventures in the other countries | Local knowledge of the overseas market. | Have to share information and profit. |

Knowledge/Analysis/Evaluation – award up to 10 marks using the levels-based mark scheme below.

| | Knowledge/Analysis/ Evaluation |
|---|---|
| Level 3 | At least 2 × Level 2 +<br>9–10 marks for well justified conclusion as to which change will be most helpful when selling products abroad.<br><br>7–8 marks for some limited judgement shown in conclusion as to which change will be most helpful when selling products abroad. |
| Level 2 | 4–6 marks<br>Detailed discussion of advantages and/or disadvantages of each possible change. |
| Level 1 | 1–3 marks<br>Outline of advantages and/or disadvantages of each possible change. |

Level 1 – 1 mark for each L1 statement (max of 3 marks) e.g. Remaining a private limited company means the business will keep its accounts private.

Level 2 – 1 × L2 explanation can gain 4 marks and a further mark can be awarded for each additional L2 explanation (max 6 marks) e.g. Changing to a public limited company means the business will not keep its accounts private and so it will be easier for competitors to obtain information about the company. However, it will be able to obtain capital from selling shares as it can now sell shares to more than family and friends and this will enable it to cover the increase in costs from starting to export. (4 marks for L2 answer).

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Level 3 – for L3 to be awarded there need to be at least two L2 marks awarded and then a justified conclusion as to which change will be most helpful when selling products abroad.

**Award up to 2 additional marks for relevant application.**

Possible application marks: paint; country X; paint manufacturer; large limited company; imports raw materials; makes tins (cans) of paint; sells to large retailers; new waterproof paint; new paint for outside of houses; start exporting paint in 2018; wants to increase output; increase in imports of paint.

There may be other examples in context which have not been included here.

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