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Pearson Edexcel
Level 3 GCE

Centre Number

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Candidate Number

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Economics B

Advanced Subsidiary

Paper 1: Markets, consumers and firms

Monday 15 May 2017 – Morning

Time: 1 hour 30 minutes

Paper Reference

8EB0/01

You do not need any other materials.

Total Marks

Instructions

- Use **black** ink or ball-point pen.
- **Fill in the boxes** at the top of this page with your name, centre number and candidate number.
- Answer **all** questions in Sections A, B and C.
- Answer the questions in the spaces provided
– *there may be more space than you need.*

Information

- The total mark for this paper is 80.
- The marks for **each** question are shown in brackets
– *use this as a guide as to how much time to spend on each question.*
- Calculators may be used.

Advice

- Read each question carefully before you start to answer it.
- Try to answer every question.
- Check your answers if you have time at the end.

Turn over ►

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Answer ALL questions.

SECTION A

Read the following extract (A) before answering Question 1.

Write your answers in the spaces provided.

Extract A

Mountain Warehouse Profits Climb

Outdoor clothing chain *Mountain Warehouse* is planning to open 40 new stores in 2015 after net and gross profits increased in 2014. The hiking and sports retailer operates from high-street locations rather than retail parks and increased its sales in 2014 by 20% to £110m, boosting profits for the year by 25% to £12m.

Mark Neale, *Mountain Warehouse's* founder and chief executive, said: "We are scaling new heights, in our stores, online, and increasingly overseas. We have continued to thrive in a challenging UK retail environment, demonstrating that high-street retail can succeed so long as you have the right products at the right price." 5

Founded in 1997 with a single store in Swindon, the chain now has more than 200 stores, including 10 in Poland and one in Germany. Neale set up *Mountain Warehouse* with £40 000 from private investments, after previous attempts with a toy chain and a greetings card business met with limited success. 10

Despite only beginning to trade online in the past few years, *Mountain Warehouse* now sells to 130 countries. Online sales rose 50% in 2014 whilst sales at established outlets increased by 9%. In 2015 the business will launch a dedicated German-language website and open more stores in Germany and Poland. More than half of the planned 40 new stores this year will be in the UK. Outlets in garden centres have been a significant area of growth in the UK, with six opening in the past year. 15

Mountain Warehouse has thrived by focusing on the growing popularity of family-friendly discounters, while rivals such as *Millets* have come under pressure. 20

(Source: adapted from Mountain Warehouse profits climb on back of UK cycling craze,
Sarah Butler © Guardian News & Media Limited)

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- 1 (a) What is meant by the term 'gross profit'?

(2)

Gross profit is the sales revenue (turnover) of a business minus the cost of sales, i.e. revenue less the direct/variable costs of the goods sold, before overheads (expenses) are taken away.

- (b) Calculate, to 2 decimal places, the profit for the year margin for *Mountain Warehouse* in 2014. You are advised to show your working.

(4)

Profit for the year margin = (profit for the year ÷ revenue) × 100

$$= (£12m \div £110m) \times 100$$

$$= 0.10909... \times 100$$

$$= 10.909...%$$

Profit for the year margin = 10.91%



- (c) Explain **one** possible reason why Mountain Warehouse's profits increased by a higher percentage than the increase in sales.

(4)

Profits can rise faster than sales if costs rise by a smaller percentage than revenue, for example because of lower costs per unit. Mountain Warehouse's sales rose by 20% to £110m but its profit for the year rose by 25% to £12m.

A likely reason is the growth of online sales, which rose by 50% in 2014. Selling online avoids many of the costs of a high-street store, such as rent, rates and shop staff, so each extra online sale adds more to profit than a store sale. As a growing chain with over 200 stores it may also gain economies of scale, e.g. bulk-buying discounts from suppliers. As costs per unit fall, the profit margin rises, so profit grows by a greater percentage than sales.



(d) Discuss whether Mountain Warehouse has a competitive advantage.

(8)

A competitive advantage is something that allows a firm to outperform its rivals, by offering better value through lower prices (cost leadership) or through product differentiation that customers are willing to pay for.

There is strong evidence that Mountain Warehouse has one. It has thrived by focusing on the growing popularity of family-friendly discounters, offering the right products at the right price, while rivals such as Millets have come under pressure. Its sales grew 20% and profits 25% in 2014 in a challenging UK retail environment, which suggests customers prefer it to competitors. Its high-street locations give it a high profile and passing trade, and it has diversified into garden centres, with six opening in a year.

It also has a growing online presence, selling to 130 countries with online sales up 50%, and is expanding in Germany and Poland with a German-language website. This gives it a wider market and economies of scale that smaller rivals cannot match, allowing lower prices.

However, the advantage may only be short term. Discount pricing is easy for competitors to copy, and if rivals adopt a similar strategy or online-only retailers undercut it, the advantage will be eroded. It depends on the number and strength of other competitors in the industry. Other economic factors, such as a fall in consumer incomes or a weaker pound raising import costs, could reduce its competitiveness in future.

Overall, Mountain Warehouse currently has a competitive advantage based on low prices and strong locations, but it must keep adapting to changing markets if it is to sustain it.



(e) Assess whether profit maximisation is the main objective for Mountain Warehouse.

(12)

Profit maximisation means producing the output where the difference between total revenue and total cost is greatest (where $MC = MR$). Firms may instead pursue other objectives such as sales maximisation, growth, increasing market share, satisficing or customer satisfaction.

There is evidence that profit is important to Mountain Warehouse. Both net and gross profits increased in 2014, and profit for the year rose by 25% to £12m, faster than the 20% rise in sales. This suggests the business is controlling costs and improving efficiency to raise its profit margin (about 10.91%), which is consistent with profit maximisation. Profits also provide substantial internal finance for expansion, such as the 40 new stores planned for 2015, without borrowing.

However, much of the evidence points to growth and market share as the main objective. The firm is opening 40 new stores, more than half in the UK, plus more stores in Germany and Poland. Its online business now sells to 130 countries, online sales grew 50% in 2014 and it is launching a dedicated German-language website. Expansion like this involves high short-run costs, such as fit-out costs and marketing, which may reduce profits in the short term, so the firm appears willing to sacrifice some profit now in order to grow. Neale's comment about "scaling new heights" in stores, online and overseas also stresses growth rather than profit.

Its strategy of being a family-friendly discounter offering "the right products at the right price" suggests it aims to win customers from rivals such as Millets, which is about increasing market share and customer satisfaction rather than charging the highest possible prices.

On the other hand, it is difficult to separate objectives. Growth and higher market share may be the route to long-run profit maximisation, as a larger chain gains economies of



scale and greater brand recognition, so profit could still be the ultimate aim. Mountain Warehouse is privately owned by its founder, so it may pursue a range of objectives, including cost efficiency, and the owner may be happy to satisfice. It is also hard to know whether the firm is producing exactly where $MC = MR$, as firms rarely have this information.

In conclusion, profit maximisation is unlikely to be the main objective in the short run, as rapid expansion suggests growth and market share are the priority. However, since these are expected to raise profits in the long run, profit remains an important underlying objective.

(Total for Question 1 = 30 marks)

TOTAL FOR SECTION A = 30 MARKS



SECTION B

Read the following extracts (B and C) before answering Question 2.

Write your answers in the spaces provided.

Extract B

Magmatic Ltd posts £1.5m loss as it battles 'copycats'

The Bristol-based firm, which trades under the name *Trunki*, (a small carry-on or ride-on suitcase for children), has had to contend with versions of its product being produced by Chinese rivals.

"As we have become successful, we've seen an increase in copycats. It's a huge issue for us. We're still figuring out a strategy for China, and how to respond to the copycats," said *Trunki's* founder, Rob Law.

5

He added that *Trunki*, which employs 78 people, has invested heavily in improving its manufacturing facility in Plymouth and developing a new product, which will be launched next month.

"Everything is going to plan," he said. "We're still dedicated to children's travel products, but we've got our biggest product launch at the end of this month, and a very large project coming to fruition by mid next year."

10

Instead of opting to take out a loan, *Magmatic Ltd* received a £3.92m investment from the *Business Growth Fund (BGF)* in April 2013. The *BGF* provides long-term capital and has been investing in fast growing British companies since 2011.

15

More than 2 million *Trunkis* have been sold to date and the firm says that a fifth of all three to six-year-olds in the UK own one. About 67% of sales are in the UK.

(Source: adapted from *Trunki posts £1.4m loss as it battles 'copycats'*, Rebecca Burn-Callander and Elizabeth Anderson © Telegraph Media Group Limited)

Extract C

Magmatic Ltd sales and profit figures 2011–2013

Year	Turnover	Profit for the year
2011	£5 304 000	£839 000
2012	£6 100 000	£720 000
2013	£8 130 000	(£1 500 000)

(Source: adapted from HS2 WORTH 'UP TO £1BN PER YEAR TO WEST YORKS'
© Newsco Insider Limited and *Trunki posts £1.4m loss as it battles 'copycats'*,
Rebecca Burn-Callander and Elizabeth Anderson © Telegraph Media Group Limited)



2 (a) What is meant by the term 'loan'?

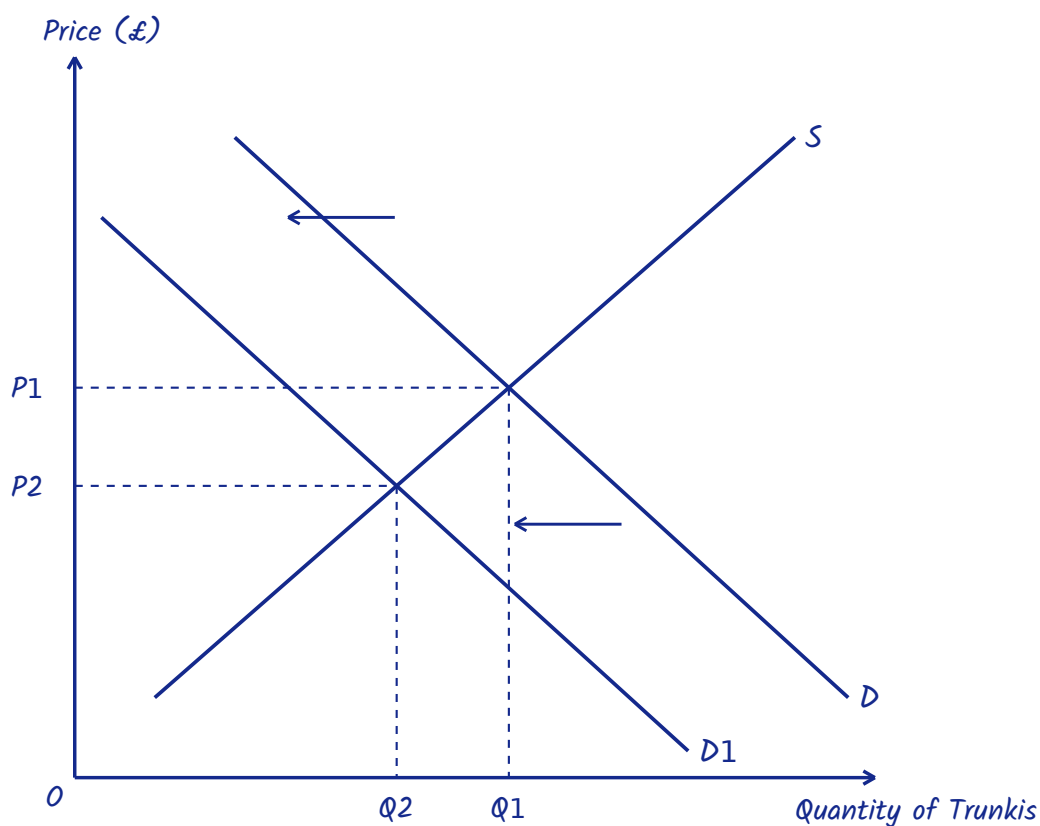
(2)

A loan is a sum of money borrowed from a bank or other lender for a fixed period, which must be paid back, usually in regular instalments with interest.

(b) There are an increasing number of 'copycat' products of *Magmatic Ltd's Trunki* available.

Using a supply and demand diagram, illustrate the likely impact of this on sales of *Trunki*.

(4)



Copycat substitutes reduce demand for Trunki: D shifts left to D1.

Price falls from P1 to P2 and quantity sold falls from Q1 to Q2, so sales revenue of Trunki falls.



- (c) Explain **one** way in which *Magmatic Ltd* may increase demand for its range of *Trunki* products.

(4)

Magmatic Ltd could increase demand by advertising and promoting its products, which shifts the demand curve to the right. It has invested heavily in developing a new product and has its biggest product launch at the end of the month, with a very large project coming to fruition by mid next year.

By advertising the new product launch, for example in family travel magazines and online, and stressing that Trunki is the original brand rather than a copycat, it can raise awareness and brand loyalty among parents. This increases demand for the whole Trunki range and raises sales, and because demand becomes more price inelastic it can maintain its price despite the copycats.



- (d) Using Extract C, discuss the difficulties in obtaining the necessary funds for Magmatic Ltd's expansion plans.

(8)

Firms can obtain finance from internal sources such as retained profit, or external sources such as bank loans, overdrafts, venture capital, share capital from individual investors and long-term capital funds like the BGF. Magmatic's expansion, including its new manufacturing facility in Plymouth and new products, needs large sums.

Extract C shows the difficulty. Turnover rose from £5 304 000 in 2011 to £8 130 000 in 2013, a rise of about 53%, yet profit for the year fell from £839 000 to £720 000 and then to a loss of £1 500 000 in 2013. Since profit = revenue minus costs, costs must have risen much faster than sales. A loss means there is no retained profit to fund expansion internally.

Bank loans may be harder to obtain because the company made a loss in 2013, so lenders see it as a greater risk of default. If a loan is offered, it is likely to be at a higher interest rate, and interest payments would increase costs and deepen the losses. The fall from £839 000 profit to a £1.5m loss may also discourage investors, who may demand a larger share of the business in return for capital.

However, the difficulty should not be overstated. Magmatic has already obtained a £3.92m investment from the BGF, which provides long-term capital without interest payments. Investors may be encouraged by rising sales and the fact that a fifth of three to six-year-olds in the UK own a Trunki. The loss may be temporary, caused by heavy investment and legal costs against copycats, so profits may rise again if costs can be reduced.

Overall, obtaining finance is harder and more expensive while Magmatic is loss-making, but strong sales growth means alternative sources such as equity investors are still likely to be available.

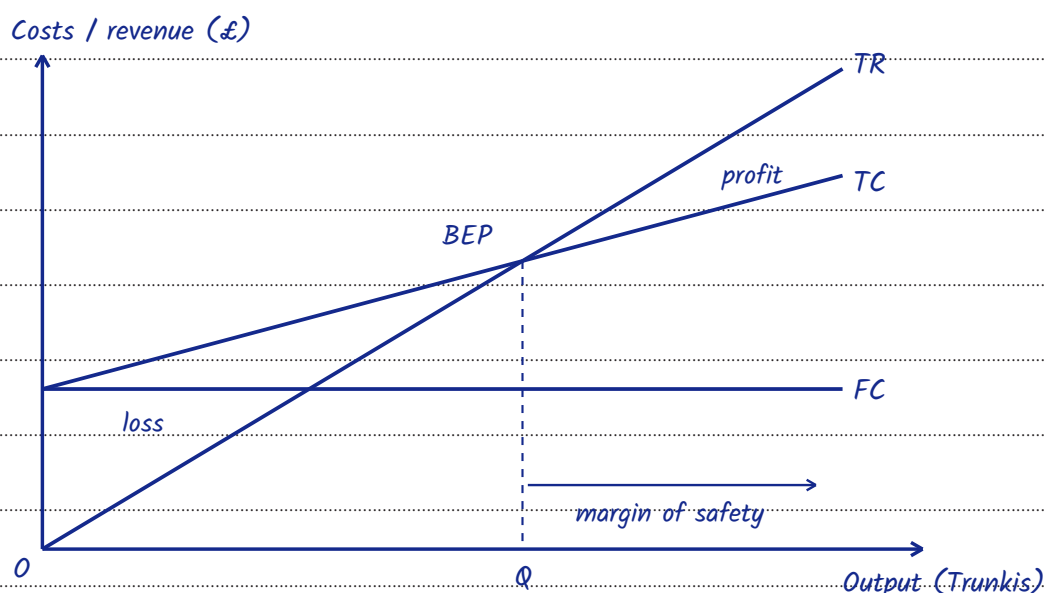


- (e) Assess the benefits of using break-even analysis to a business such as Magmatic Ltd.

(12)

Break-even analysis shows the level of output at which total revenue equals total costs, so the firm makes neither a profit nor a loss. Break-even output = fixed costs ÷ contribution per unit, where contribution = selling price minus variable cost per unit. In the diagram, output above Q gives a profit and output below Q a loss.

It helps Magmatic estimate whether it will make a profit or loss after its new product launch, and how many units must be sold to cover its costs, so it can plan ahead. It can show the margin of safety, i.e. how far sales could fall before losses occur, which



matters as copycats take sales. It can help with pricing strategy: a higher price raises contribution per unit and lowers break-even output. It also shows the effect of rising fixed costs, such as legal battles with Chinese rivals, advertising, product development and the Plymouth facility, which mean more Trunkis must be sold to break even. This may help Magmatic see where costs need to be cut to return from a £1.5m loss to profit.

Break-even analysis is also part of a business plan, and finance providers such as the BGF are unlikely to invest without one, so it may help Magmatic raise funds.

However, it has limitations. It is based on estimates and assumes that fixed costs,



variable costs and the selling price stay constant, which is unrealistic. Chinese copycats may force price cuts or lead to unexpected legal costs not accounted for, and external factors such as exchange rates or a recession may make the analysis inaccurate. The further into the future, the less accurate the forecast. It also assumes all output is sold, and Magmatic sells a range of products and is launching a new one, which makes calculating a single break-even point more complicated as costs are shared.

Overall, break-even analysis is a useful, simple planning tool, especially to help Magmatic obtain finance from the BGF and evaluate its new product. However, its usefulness depends on the accuracy of the estimates, and unless costs are reduced it will be of limited help in returning the business to profit.

(Total for Question 2 = 30 marks)

TOTAL FOR SECTION B = 30 MARKS



SECTION C

Read the following extract (D) before answering Question 3.

Write your answer in the space provided.

Extract D

Heathrow third runway decision delayed until summer 2016

A final decision on whether to build a new runway at Heathrow Airport has been delayed from the end of 2015, until at least the summer of 2016, the Government has confirmed.

After discussion of the controversial issue by the Prime Minister and senior Cabinet ministers, Transport Secretary, Patrick McLoughlin said, "There is a clear case for airport expansion, but it's vitally important to get the decision right. Ministers will undertake more work on environmental impacts, including air quality and noise, and continue to work on all the shortlisted locations." (Two at Heathrow and one at Gatwick.)

5

Critics say the delay will harm the economy and go against the support received at a local and national level from politicians, business, trade unions and the aviation industry for a Heathrow expansion.

10

The project to build a third runway at Heathrow is estimated to cost £18.6bn, but the shortlist of proposals being considered by the Government also features a £13.5bn proposal to extend the existing northern runway at Heathrow, to form the equivalent of two runways. Meanwhile Gatwick's proposal to build a second runway at its airport has an estimated cost of £9.3bn.

15

In a statement issued after the meeting of the Cabinet airports sub-committee, the Government said it backed the call for more runway capacity by 2030, but faced a 'complex and challenging decision on delivering this'.

The Government will undertake a package of further work and it is anticipated that it will conclude over the summer. It will include air quality analysis and testing of the latest projections for nitrogen dioxide.

20

(Source: adapted from Heathrow third runway decision delayed until summer 2016
© Belfast Telegraph)

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- 3 Evaluate the potential costs and benefits of building a new runway at Heathrow Airport.

(20)

Building a new runway involves both private and external costs and benefits. A cost-benefit analysis would compare the social costs (private plus external costs) with the social benefits (private plus external benefits) over the life of the project.

The most obvious cost is financial. The third runway is estimated to cost £18.6bn. This involves an opportunity cost, as the resources could have been used for the alternatives on the shortlist, such as extending the northern runway at Heathrow for £13.5bn or a second runway at Gatwick for £9.3bn, saving £9.3bn, or for other uses such as hospitals or rail. Large infrastructure projects often go over budget, so the true cost may be higher than projected.

There are also significant negative externalities. Scarce resources such as land, fresh air and quiet local areas would be sacrificed, and homes may be demolished. More flights mean more noise pollution, worse air quality, including nitrogen dioxide, and higher carbon emissions, contributing to climate change. These external costs fall on third parties, such as local residents, who may suffer health problems and falling house prices, and this may cause resentment towards the government. The government is doing more work on air quality and noise, which shows how serious these costs are.

On the other hand, there are significant benefits. Heathrow is near full capacity, and the government backs the need for more runway capacity by 2030. Additional capacity would allow more flights for leisure and business purposes, benefiting airlines and passengers through more choice and possibly lower fares. Better links to growing markets would boost trade, exports and foreign investment, improving UK competitiveness. Without expansion, producers and the economy may suffer, as trade and hub traffic move to other European airports such as Paris or Amsterdam.

The construction would create jobs and incomes, with a multiplier effect on the local



and national economy, and the expansion would support sustained economic growth, helping the government meet its macroeconomic objectives. The government could recoup some of the costs through higher tax revenue from the extra business activity. This explains the support from politicians, business, trade unions and the aviation industry described in Extract D, and critics argue that the delay itself will harm the economy. However, there are several reasons to be cautious when evaluating these costs and benefits. Many of them, such as the value of quiet, health effects or future carbon damage, are difficult to quantify accurately in money terms, so any cost-benefit analysis depends on assumptions and value judgements. This is a long-term project, so future benefits must be discounted and forecasts of passenger demand may be wrong. Increasing capacity by 2030 may not meet longer-term needs, so further expansion could be needed.

The magnitude of costs and benefits also differs between stakeholders. The benefits are spread across the whole economy, while the external costs are concentrated on local residents, so even if total benefits exceed total costs, there are losers who may need compensation. If the extra runway generates enough finance, some could be used for schemes to benefit the environment and the areas damaged by construction, such as noise insulation for homes, which would reduce the net external costs.

In the short run, the costs, including construction disruption and the £18.6bn financial cost, are high and certain, while the benefits appear mainly in the long run and are less certain. Comparing alternatives is also important: the Gatwick option is cheaper and would affect fewer people, but may not provide the same hub benefits as Heathrow.

In conclusion, a new runway at Heathrow is likely to bring substantial long-run benefits for UK trade, competitiveness and growth, which probably outweigh the costs if the external costs are reduced through compensation and environmental schemes. However, given the high financial cost, the opportunity cost of cheaper alternatives and the



uncertainty of the estimates, it depends on a careful cost-benefit analysis, which is why the government was right to take more time over the decision.

(Total for Question 3 = 20 marks)

TOTAL FOR SECTION C = 20 MARKS
TOTAL FOR PAPER = 80 MARKS



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