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Pearson Edexcel
Level 3 GCE

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Economics B

Advanced Subsidiary

Paper 2: The wider economic environment

Monday 22 May 2017 – Morning

Time: 1 hour 30 minutes

Paper Reference

8EB0/02

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.

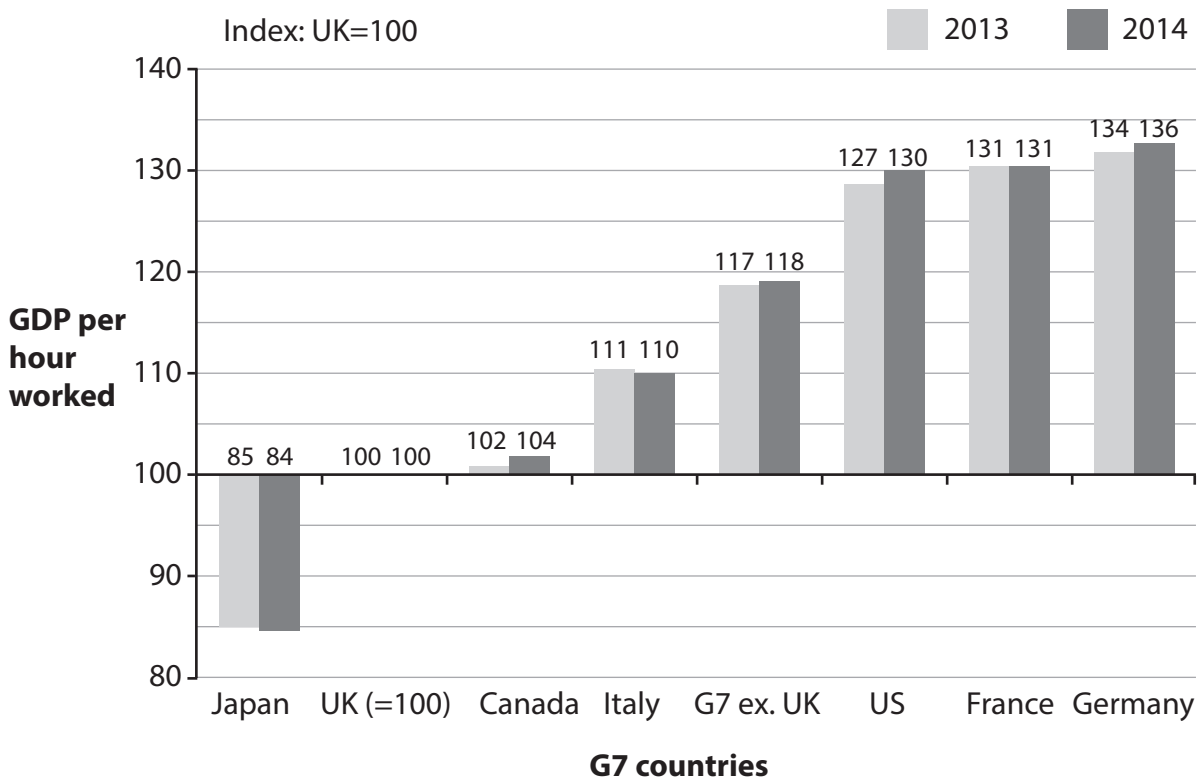
SECTION A

Read the following extracts (A and B) before answering Question 1.

Write your answers in the spaces provided.

Extract A

International Comparisons of Productivity – Final Estimates for 2014



(Source: adapted from © Office for National Statistics / Crown Copyright)



Extract B**UK's poor productivity figures show challenge for government**

Britain's productivity gap against the other G7 nations has widened to its largest since estimates began in 1991 according to official figures. Only Japan in the G7 performed worse than the UK in 2014 in terms of output per hour worked. Employment in the UK is at a record high and inflation at a record low, but the challenge for policymakers and businesses is getting more output out of each hour worked.

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A spokeswoman for the Department for Business, Innovation and Skills said the government was "committed to delivering a return to productivity growth which is the route to raising living standards for everyone in the UK. The reforms set out in our productivity plan will deliver a change that will increase long term investment in people, capital and ideas and help to realise the ambitions of hard working people." In July 2015, the Business Secretary, Sajid Javid, announced a mix of deregulation and government intervention across housing, apprenticeships, skills, universities, transport and finance in an effort to address "the economic challenge of our age" – the UK's poor productivity performance.

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Responding to the latest figures, general secretary of the Trade Union Congress (TUC) Frances O'Grady said, "We need a better economic plan focused on higher public investment in modern infrastructure and workforce skills. A new round of severe public service cuts and pay freezes will keep the UK in the slow lane."

15

To help tackle the UK's productivity problem, *Jaguar Land Rover (JLR)*, which exports 80% of all vehicles it manufactures in the UK, has teamed up with Warwick Manufacturing Group to launch its own Jaguar Land Rover Academy. It will offer training for all employees from new recruits to more experienced employees. Welcoming the new academy, Skills Minister Nick Boles said: "Companies like *JLR* are encouraging talented people to build life long careers and in turn boost the country's productivity and competitiveness."

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(Source: adapted from UK's poor productivity figures show challenge for government, Katie Allen © GUARDIAN NEWS & MEDIA LIMITED and Jaguar Land Rover teams up with WMG to launch academy, Enda Mullen © Birmingham Post)



1 (a) What is meant by the term 'inflation'?

(2)

Inflation is a sustained increase in the average (general) price level in an economy over a period of time, so the purchasing power of money falls. In the UK it is measured by the annual percentage change in the CPI.

In 2013, JLR produced 425,000 vehicles per year with 25,500 employees.

(b) Calculate JLR's labour productivity to 2 decimal places. You are advised to show your working.

(4)

Labour productivity = output $\div$ number of employees

= 425,000 vehicles $\div$ 25,500 employees

= 16.666... = 16.67 vehicles per employee (per year)

Labour productivity = 16.67 vehicles per employee



(c) Using Extract A, explain **one** effect of the productivity gap between the US and the UK.

(4)

One effect is that UK firms are likely to have higher average costs than US firms, because the UK is less productive. Extract A shows that in 2014 US output per hour worked was 130 compared with the UK at 100, a gap of 30 index points, and the gap has grown by 3 index points from 27 in 2013 (US 127).

Since US workers produce about 30% more per hour, US producers have lower labour costs per unit, so they can charge lower prices than UK firms. This gives US firms a competitive advantage in international trade, so UK exports may fall and UK economic growth and living standards may be lower than in the US.



(d) Discuss the importance of increasing productivity to UK firms such as JLR.

(8)

Productivity measures how efficiently inputs such as labour and capital are used to produce output, for example output per worker or per hour worked. It is closely linked to the competitiveness of a firm.

Increasing productivity is important to JLR because if it can use fewer resources to produce more cars, unit (average) costs will fall. In 2013 JLR produced 16.67 vehicles per employee; if training at the new JLR Academy raises this, the labour cost of each car falls. Lower costs mean JLR could cut the price of its cars and become more price competitive against other car manufacturers, or keep prices the same and earn a higher profit margin.

Rising productivity may also come from better skills, leading to higher quality and more reliable cars. This is especially important for JLR, which sells luxury cars that must meet a high standard, so it may be able to charge a higher price and increase overall profits.

However, other factors are also important. JLR exports 80% of the vehicles it makes in the UK, so the value of the pound against other currencies may matter more to its competitiveness abroad: a strong pound would raise its export prices whatever happens to productivity. The PED for JLR's cars also matters; luxury cars are likely to be price inelastic, so lower costs and prices may not raise revenue much, and brand image and quality may count for more. Also, if employees are pushed to produce too many cars per hour, quality may fall, leaving customers dissatisfied.

Overall, productivity is very important for long run competitiveness, but its importance for JLR depends on the exchange rate and on maintaining quality.



- (e) Assess the importance of education and training to improve labour productivity in the UK.

(12)

Labour productivity measures output per worker (or per hour worked) in a period of time. It is a key factor in determining the productive potential of an economy. Extract A shows that in 2014 the UK (100) had lower output per hour than every other G7 country except Japan (84), and the gap is the largest since 1991.

Education and training increase human capital, the skills and knowledge of the labour force. The government can invest in education, apprenticeships and universities, as set out in the productivity plan in Extract B. Skilled employees are more flexible and able to carry out a wider range of tasks, so output per hour rises. Improvements in human capital, such as JLR's new academy, which trains all employees from new recruits to experienced staff, reduce poor quality output and mistakes, so there is less wastage and more saleable output from each hour worked.

A more flexible, better trained labour force also makes it easier for firms to introduce changes in working practices, and allows workers to adapt to new technologies. New capital and technology only raise productivity if workers have the skills to use them, so training increases efficiency. This lowers unit costs, improves competitiveness and shifts LRAS to the right, raising living standards, as the government spokeswoman suggests. However, education and training take a long time to have an effect; a new university course or apprenticeship may take years before productivity rises. They also have an opportunity cost: government spending on education cannot be spent elsewhere, and firms face a direct cost of training plus an indirect cost of lost production while workers train, which may outweigh any gains. Trained workers may also leave for rival firms, which discourages firms from training.

Moreover, there are many other supply side policies which can raise productivity. Extract B says the TUC wants higher public investment in modern infrastructure, and the



government plan includes transport, finance and deregulation. Investment in capital, R&D and new technology may raise output per hour more quickly than training. Severe public service cuts and pay freezes may also reduce motivation.

In conclusion, education and training are very important, especially in the long run, but how much they improve labour productivity depends on the quality of the training provided and on whether they are combined with investment in infrastructure and capital at the same time.

(Total for Question 1 = 30 marks)

TOTAL FOR SECTION A = 30 MARKS



SECTION B

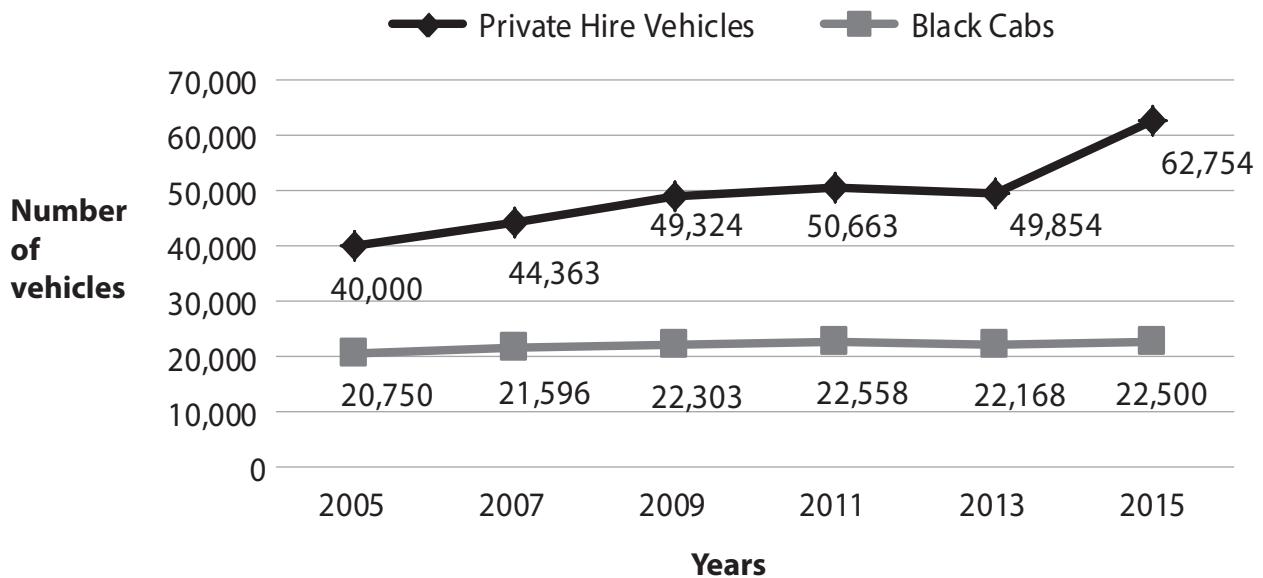
Read the following extracts (C and D) before answering Question 2.

Write your answers in the spaces provided.

Extract C

Total Number of Vehicles available for taxi journeys in London 2005–2015

The number of Private Hire Vehicles and Black Cabs in London



NB: Black Cabs are available for immediate hire and can be hailed in the street (known as 'plying for hire'). Black Cabs can also accept pre-bookings. Private Hire Vehicles (PHVs) must be pre-booked and cannot use taxi ranks. It is illegal for PHVs to ply for hire.

(Source: adapted from © Crown Copyright)



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Extract D**Taxi Wars: *Uber* and the rise of the App**

For years black cabs and private hire vehicles (PHV) have only ever competed with each other but there is a new competitor *Uber* – a Californian technology giant – that's trying to take over the streets. Its smartphone app gives users the opportunity to book an *Uber* taxi at the touch of a button. The user can follow the taxi's journey via a GPS generated image and it allows the passenger to pay online so no physical cash needs to change hands.

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Uber is attracting a large number of drivers with offers of flexible working hours, the ability to earn up to £900 a week in fares and cash incentives for recruiting other drivers. Tens of thousands of drivers have so far been recruited.

James Farrar, a union representative for *Uber* drivers, has disputed *Uber*'s claims that drivers can earn those amounts per week. He says its drivers are earning below the minimum wage after costs. James claims, "top drivers earn £5.68 an hour, that's the top driver."

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With the UK taxi market worth £5bn, it is no wonder the established black cab taxi trade is worried. Steve McNamara from the London Taxi Drivers Association claims that black cab incomes are down 25% during the night and 10% during the day as *Uber* is using predatory pricing.

15

Uber is thriving, with UK profits last year of nearly £900 000 and global revenues of over £1bn. *Uber* claims to be up to 40% cheaper than a black cab journey and its popularity is clearly evident (currently number 65 on *Apple*'s free apps chart); it's seen as a welcome addition to the marketplace where technology has changed the shape of the taxi market.

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Taxi hailing apps are now commonplace and there are at least four different apps that have agreements with black cab drivers to assist them with competing with the likes of *Uber*. All types of taxis, whether traditional black cabs or private hire vehicles, will have to embrace the digital economy in order to survive.

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(Source: adapted from The Secrets of the Taxi Wars: Tonight © Copyright ITV plc 2016 and © Crown Copyright)



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

(2)

Predatory pricing is when a firm sets its prices at a very low level, below cost price, for a period of time so that rival firms cannot compete and are forced to leave the market.

The predator can then raise prices.

(b) Using Extract C, calculate to 2 decimal places the percentage change in the number of private hire vehicles in London from 2013 to 2015. You are advised to show your working.

(4)

Percentage change = (new - original) ÷ original × 100

= (62,754 - 49,854) ÷ 49,854 × 100

= 12,900 ÷ 49,854 × 100 = 25.875...

Percentage change = +25.88%



- (c) Explain the likely impact on the price of taxi journeys resulting from the trends shown in Extracts C and D.

(4)

The likely impact is that the price of taxi journeys will fall. Extract C shows the total number of vehicles available rose from 60,750 in 2005 to 85,254 in 2015, mainly due to private hire vehicles rising to 62,754. Extract D states that Uber claims to be up to 40% cheaper than a black cab.

This increase in the supply of taxis means there is greater competition between taxi firms for each customer, so the supply curve shifts to the right and prices become more competitive, falling for customers. Black cab incomes are already down 25% at night.



Uber is planning an extensive advertising campaign across the UK in 2016.

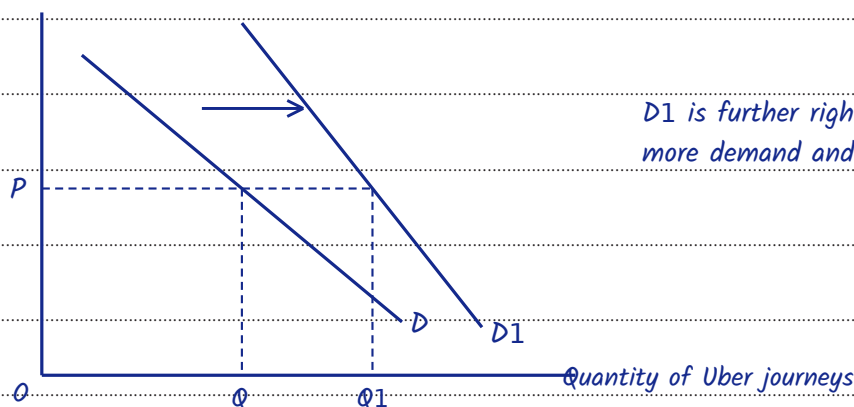
- (d) Discuss the possible impact on Uber's demand curve from this advertising campaign.

(8)

Advertising is a means of communication with the users of a product. Its purpose is to make customers aware of Uber's taxi service and to encourage brand loyalty, so that customers choose Uber rather than rival apps or traditional black cabs.

If the campaign is successful, demand for Uber journeys will increase at every price, so the demand curve shifts to the right from D to D_1 (see diagram), from Q to Q_1 at price P .

Price (£)



Successful advertising can also reduce PED, making demand more price inelastic (D_1 is steeper), so customers are more likely to use Uber even if its price is higher than rivals, and Uber could raise fares without losing many passengers.

However, this only happens if the advertising differentiates Uber's service from other competitors, since at least four apps now help black cabs compete. Convenience and speed of the service may be just as important as advertising, and many customers simply take the next available taxi, so they are unaffected by advertising. The effect therefore depends on the size and quality of the campaign and how rivals respond.



- (e) Assess how a small private hire vehicle firm could compete successfully in the taxi market.

(12)

Extracts C and D show the taxi market has become much more competitive: private hire vehicles rose from 40,000 in 2005 to 62,754 in 2015, and Uber claims to be up to 40% cheaper than black cabs. It would be very difficult for a small firm to compete on price, so it should use non-price competition.

First, a small firm can offer better customer service, such as friendly, reliable local drivers who arrive on time. This builds a reputation and results in repeat bookings from regular customers. It can also target niche markets, for example shopping centres where customers without a car need transport home with their shopping, or agreements with local restaurants and nightclubs, which bring in regular sales revenue.

Second, a small firm can be more flexible in responding to customer needs, offering extra services such as wheelchair access, child seats or covering a wider geographical area. Product differentiation or a USP, such as luxury vehicles or regular airport trips, allows it to charge a higher price because demand is less price elastic.

Third, it must embrace the digital economy, as Extract D says. An app lets customers book easily and pay online rather than in cash, and social media can be used cheaply to advertise, building brand loyalty and awareness of the business.

However, all of these non-price methods have drawbacks. Niche markets are limited in size and scope, which prevents expansion. A small firm cannot exploit economies of scale, so its costs are higher than Uber's, which earns global revenues of over £1bn.

Developing an app is expensive for a small firm. For many taxi users, price is the most important factor, so it may be hard to compete with Uber, which is accused of predatory pricing to undercut rivals.

In conclusion, a small firm can compete successfully only if it can justify higher prices through quality, reliability and a niche that Uber does not serve well. The success



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depends on local loyalty and whether Uber's low prices last in the long run; if Uber raises prices once rivals leave, small reliable firms may benefit.

(Total for Question 2 = 30 marks)

TOTAL FOR SECTION B = 30 MARKS



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SECTION C

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

Write your answer in the space provided.

Extract E

Delight over £80m Muller and Dairy Crest merger

Muller Wiseman Dairies announced its plans to acquire the dairy operations of *Dairy Crest* on 6 November and the deal was finally completed on 26 December 2015. The merger will create a new organisation called *Muller Milk & Ingredients*. The new business will employ more than 8,000 people and process 25% of Britain's milk production, with 2,000 dairy farmers contracted as suppliers.

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Muller Milk & Ingredients' Managing Director, Andrew McInnes, said: "It is clear that we have a committed workforce and a key priority is to get to know our new colleagues and ensure that they have the information they need to perform their roles and their questions are answered. For now it's very much business as usual and colleagues from *Muller Wiseman Dairies* and *Dairy Crest* deserve enormous credit for successfully delivering their obligations to customers over the key festive period."

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Employees will be able to see plans for the new organisation in site meetings and online. Customers, farmers and suppliers will be sent information about the new organisation.

(Source: adapted from Delight over £80m Muller merger © Shropshire Star)

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- 3 Evaluate the possible benefits of inorganic growth for a firm such as Muller Milk & Ingredients.

(20)

Inorganic growth is when a firm expands through mergers or takeovers (acquisitions) rather than by growing internally. It can be horizontal, vertical or conglomerate integration. The deal between Muller Wiseman Dairies and Dairy Crest is horizontal integration, as both firms were at the same stage of production, processing milk, and the new firm will now process 25% of Britain's milk production.

The first benefit is speed. Inorganic growth is rapid compared with organic growth, which could take many years to achieve the same market share. The deal was announced on 6 November and completed on 26 December 2015, so Muller gained Dairy Crest's customers, sites and brands almost immediately.

Second, Muller Milk & Ingredients benefits from an established supply chain of 2,000 contracted dairy farmers, which should help to maintain a reliable supply of milk for processing.

Third, the larger firm may gain economies of scale. Purchasing economies arise because it buys milk from 2,000 farmers in bulk and has greater bargaining power over them, so it can negotiate lower prices. Technical economies may come from using larger processing plants and closing duplicate sites, and managerial economies from having specialist managers. Lower average costs allow lower prices for supermarkets or higher profit margins, increasing competitiveness.

Fourth, there is a reduction in competition, as Dairy Crest was once a rival and is now part of the larger organisation. With 25% of milk processing, the firm has more market power, both over suppliers and over its customers, so it may be able to raise prices and profits. It can also use the processed milk in its other operations, such as Muller Yogurt & Desserts, which increases profitability overall. The new firm will employ more than 8,000 people, and being larger and more powerful may help to protect these jobs.



However, there are problems with growth, particularly inorganic growth: around 50% of mergers and takeovers fail to achieve the anticipated benefits. Diseconomies of scale may occur because of the size of the new business, raising average costs.

Communication may be more difficult when managing 8,000 employees and 2,000 dairy farmers, so decisions are slower and coordination is harder. The managing director stresses the need to give staff information through site meetings and online, which shows this is a real concern.

There may also be culture clashes, as the two firms were in competition and had different ways of running their businesses. This can lower morale and motivation, and redundancies from closing duplicate sites could make this worse, so the expected cost savings may not appear.

In addition, the acquisition cost of £80m is substantial and may affect the financial position of the firm, especially if it was financed by borrowing, as interest payments reduce profits. The extra market power may also attract the attention of the competition authorities (CMA), and supermarkets, who are powerful buyers of milk, may resist higher prices.

In conclusion, inorganic growth gives Muller Milk & Ingredients important benefits, mainly rapid growth, economies of scale from its 2,000 suppliers and 25% share of milk processing, and less competition. In the short run, integration problems such as culture clashes and communication difficulties may mean the benefits are limited, as the 'business as usual' comments suggest. In the long run, the benefits are likely to outweigh the costs, but this depends on how well management integrates the two workforces and controls diseconomies of scale. Since the two firms do very similar work, horizontal integration makes the gains more likely than for a conglomerate merger.



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(Total for Question 3 = 20 marks)

TOTAL FOR SECTION C = 20 MARKS

TOTAL FOR PAPER = 80 MARKS



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