PEARSON EDEXCEL A-LEVEL ECONOMICS B · 9EB0

# ECONOMICS



## EXAM QUESTION PACK

### 1.6 REVENUE, COSTS, PROFITS AND CASH

| SCORE | PERCENTAGE |
| --- | --- |
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STEMUP

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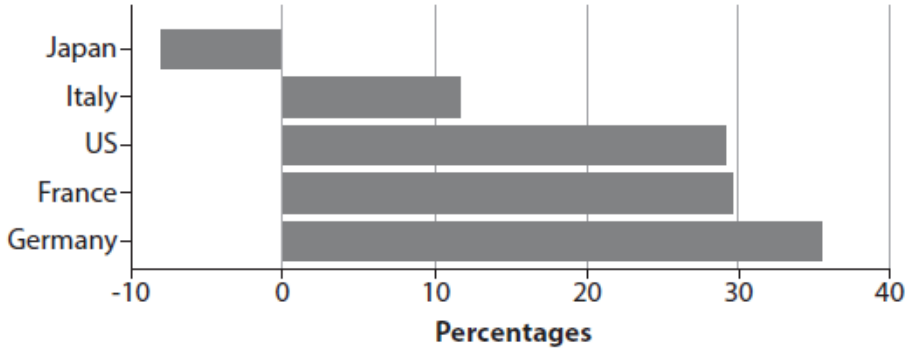
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# Questions

Q1.

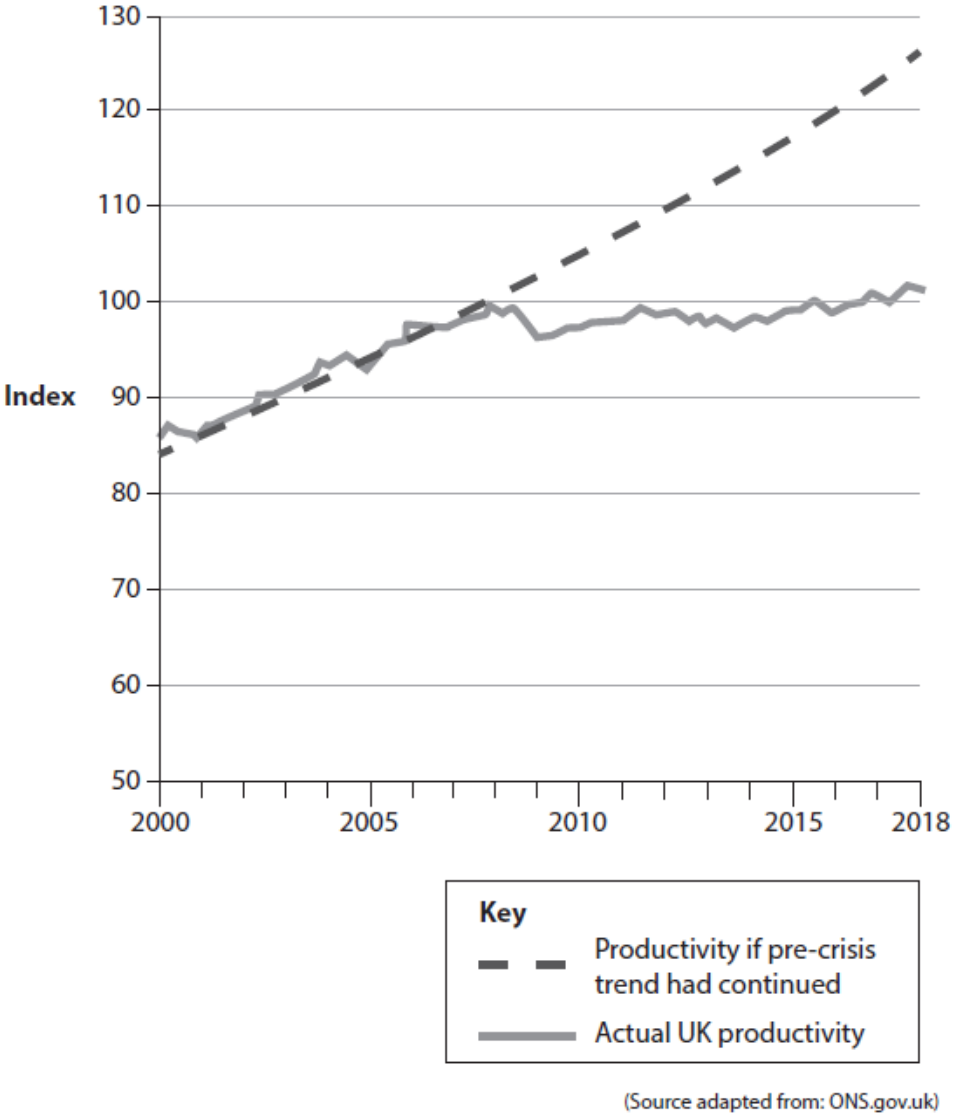
**The UK economy**

**Figure 3: GDP per hour worked, nominal values at PPPs, percentage above or below UK level, 2018**



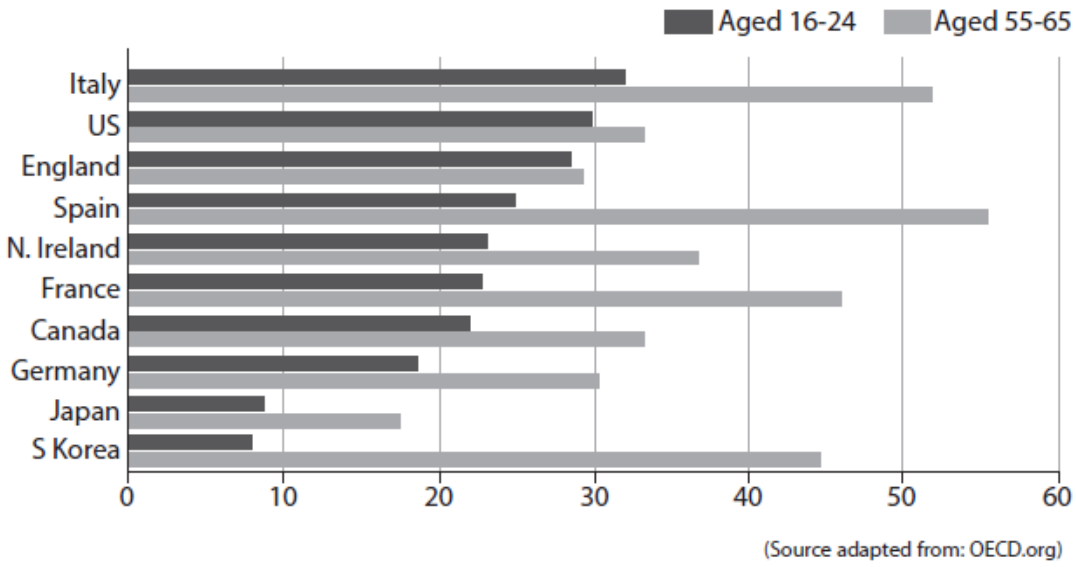

(Source adapted from: ONS.gov.uk)

**Figure 4: UK index of output per hour worked, base year 2016 = 100**




(Source adapted from: ONS.gov.uk)

**Figure 5: Proportion of adults with low literacy and/or numeracy skills, by age, selected countries**




(Source adapted from: OECD.org)

(Figures 3, 4 and 5 Source: FT.com 2016 data published https://www.ft.com/content/6ada0002-9a57-11e8-9702-5946bae86e6d 2018)

**Extract D**

**The end of the High Street?**

Homebase, the UK's second-largest do-it-yourself (DIY) retailer, made £20–40 million a year profit up to 2016. The Australian conglomerate Wesfarmers bought Homebase for £340 million in 2016, and began to rebrand 24 stores under its own name. It scaled back on curtain, cushion and other homeware sales in favour of power tools and building materials. In 2018 Wesfarmers sold the DIY chain for £1, in the face of "extremely challenging" market conditions and excess store space. The chain was bought by restructuring specialist Hilco, which had also rescued the music chain HMV in 2013, and the stores have gone back to using the Homebase name. Over 70% of Homebase stores are currently losing money and the new owner wants to exit loss-making stores and agree to rent reductions, as sales fell 10% in 2018. Homebase has gone back to popular products and brands dropped by its previous owner Wesfarmers.

The closures will add to the mounting job losses on Britain's high streets. About 25 000 jobs have gone in the first seven months of 2018, according to analysis by an economics thinktank. A further 8 300 jobs are under threat at suppliers, with the multiplier effect meaning that GDP is £1.5 billion less than projected.

Several Marks & Spencer clothing stores closed their doors for the last time as the high-street chain pushes ahead with a transformation plan. It plans to close 100 stores by 2022. Toys R Us, Poundworld and Maplin have shut down completely, while New Look, Mothercare and Carpetright have plans to close hundreds of stores as losses rise sharply. Increasing rents and higher business rates have occurred at the same time as falling consumer confidence. Meanwhile, House of Fraser employees and pensioners are nervously awaiting more details about their future. The £90 million rescue deal by Sports Direct, the sportswear chain controlled by Mike Ashley, will protect 16 000 jobs for the time being.

(Source adapted from: https://www.ft.com/content/00d0bb9e-a6ee-11e8-8ecf-a7ae1beff35b 24 August 2018 and https://www.theguardian.com/business/2018/aug/13/homebase-close-80-stores-high-street-job-losses-mount Patrick Collinson 13 Aug 2018)

(a) With specific reference to Figure 3, explain why productivity is measured by 'GDP per hour worked, nominal values at PPPs'.

**(5)**

(b) Apart from literacy and numeracy skills in young workers, examine **one** reason for the trend in productivity in the UK, over the period shown in Figure 4.

**(8)**

(c) Discuss factors that are causing many high street retailers in the UK to close some branches or shut down completely.

Use a cost and revenue diagram to support your answer.

**(12)**

**EITHER**

(d) Evaluate possible microeconomic and macroeconomic policies which could be used to improve UK competitiveness.

**(25)**

**OR**

(e) Evaluate the microeconomic and macroeconomic effects of a decline in the literacy and numeracy skills of a country's young workers.

**(25)**

**(Total for question = 50 marks)**

Q2.

In 2015 JCB, the construction equipment manufacturer, experienced a 6% fall in revenue. This resulted from a reduction in sales of construction equipment to emerging markets.

(a) Draw a cost and revenue diagram to show the likely impact of a reduction in sales of construction equipment on JCB's profits.

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(b) In India JCB has a strong brand image and a 50% share of the market for construction equipment. This means the construction equipment market in India is likely to have a low level of:

**(1)**

☒ **A** concentration

☒ **B** contestability

☒ **C** private ownership

☒ **D** specialisation

**(Total for question = 5 marks)**

Q3.

**Use the data to support your answers where relevant. You may annotate and include diagrams in your answers.**

In 2016, the insurance group Esure undertook a demerger with its GoCompare price comparison website.

(a) The most likely reason for this demerger was to:

**(1)**

☒ **A** benefit from external economies of scale

☒ **B** benefit from internal economies of scale

☒ **C** focus more on its core business

☒ **D** increase its market share

Following the demerger, GoCompare announced in 2017 a profit of £17.5 million, up 21.5% on 2016. Total revenue in 2017 was £75.8 million, up 4.1% on 2016.

(Source: adapted from https://www.insuranceage.co.uk/insurer/3107496/profits-up-at-go-compare)

(b) Calculate, using the information provided, the total costs of GoCompare in **2016**.

**(4)**

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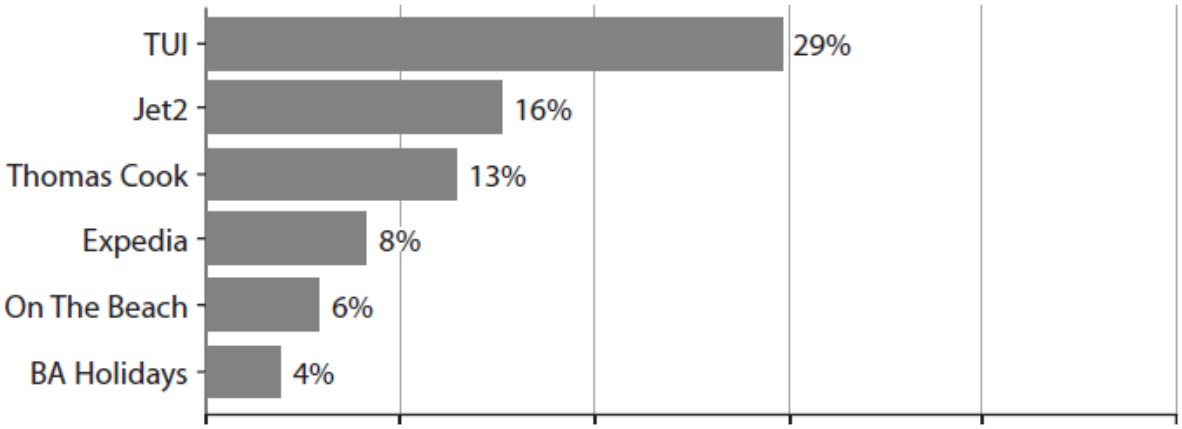
**(Total for question = 5 marks)**

Q4.

**Read Figures 1 and 2 and the following extracts (A to C) before answering this question.**

**The travel and tourism industry**

**Figure 1: Package holiday market share of the six largest providers, booked by UK residents, 2019**




(Source adapted from: https://knowledge.sharescope.co.uk/2019/10/16/finding-companies-that-control-their-own-destinies/The Times/ATOL)

**Figure 2: Jet2 package holiday prices to Sorrento**

Price before Thomas Cook shutdown

**2 Adults for 7 Nights from Monday 25 May 2020**

- Half Board
- 1 x Premium Double or Twin room
- Return flights from Edinburgh
  View flight times
- 22 kg Bag Allowance
- 10 kg Hand Baggage
- ATOL Protected
- Coach Transfers

Holiday price from **£1,576** Per person price **£788**

Price 12 hours after Thomas Cook shutdown

**2 Adults for 7 Nights from Monday 25 May 2020**

- Half Board
- 1 x Premium Double or Twin room
- Return flights from Edinburgh
  View flight times
- 22 kg Bag Allowance
- 10 kg Hand Baggage
- ATOL Protected
- Coach Transfers

Holiday price from **£1,648** Per person price **£824**

Data accessed: 22nd and 23rd September 2019

## Extract A

### Marginal productivity of cabin crew

Cabin crew are responsible for loading passengers and providing in-flight meals. United Airlines is planning to reduce the number of its cabin crew members onboard international flights. The airline currently operates its planes with one more cabin crew member than its competitors. The marginal productivity of this additional crew member may be low. By reducing the number of its cabin crew members United Airlines will be able to operate more efficiently and compete more effectively.

(Source adapted from: https://simpleflying.com/united-airlines-to-reduce-number-of-crew-on-international-flights/)

## Extract B

### Thomas Cook's environmental impact

Thomas Cook Group plc's operations included its airline and 560 high street travel agents providing flights, hotels and package holidays.

The environmental impact of the travel industry is significant. It accounts for 8% of all global carbon emissions. Thomas Cook recognised the risks presented by climate change and actively engaged in reducing their airline emissions. Its plans included using more efficient aircraft and using lower-carbon fuel. In 2018, Thomas Cook was included in the top 10 of the world's most fuel-efficient airlines.

(Source adapted from: https://www.thomascookgroup.com/investors/insight_external_assest/Thomas+Cook+Sustainability+Report+2018.pdf)

## Extract C

### Why did Thomas Cook shut down?

Thomas Cook Group plc ceased trading on 23 September 2019. The collapse of Thomas Cook left 600 000 travellers stranded overseas and approximately 21 000 worldwide employees were left without a job.

Thomas Cook's management said that the failure of rescue talks between banks, shareholders and the UK Government meant it had no choice but to shut down the business.

But in truth the tour operator's problems go back much further. A disastrous merger in 2007, increased debts, the internet revolution in holiday booking and Brexit uncertainty all contributed to the failure of the business.

In 2007 it merged with MyTravel. Thomas Cook directors had an objective of rapid company growth over short-term profitability. The merger was supposed to create a European giant, promising £75 million-a-year cost savings and a springboard to challenge emerging internet rivals. In reality, Thomas Cook was merging with a company that had only made a profit once in the previous six years, and the deal left the Group with huge debts. In May 2019, the firm reported a £1.5 billion loss.

The role of the management in Thomas Cook's collapse is being investigated by the UK Government. Thomas Cook executives' salaries and bonuses have been questioned. Directors received salaries totalling £20 million in the five years before its collapse. The Chief Executive Officer (CEO) earned a £500 000 cash bonus in 2017 and about £8.5 million in his five years with the company. It seems that around £4 million of this was in the form of shares. The share price reached £1.46 in 2018, but each share is now worthless.

The CEO said that the directors had worked "exhaustively" to rescue Thomas Cook and create a long-term turnaround strategy. "It is a matter of profound regret to me and the rest of the board that we were not successful."

The UK prime minister admitted that the government refused to grant £150 million as a subsidy to help rescue Thomas Cook in the short run. The UK prime minister stated: "Clearly, that is a lot of taxpayers' money and sets up, as people will appreciate, a moral hazard in the case of future such commercial difficulties that companies face. I have questions about whether it's right that the directors, or whoever, the board, should pay themselves large sums when businesses can go down the tubes like that. One is driven to reflect on whether the directors of these companies are properly incentivised to sort such matters out".

(Source adapted from: https://www.theguardian.com/business/2019/sep/23/thomas-cook-as-the-world-turned-the-sun-ceased-to-shine-on-venerable-tour-operator

and https://www.ft.com/content/a7dd2554-de23-11e9-b112-9624ec9edc59)

(a) Explain the likely impact of diminishing marginal productivity of labour on cabin crew staffing levels. Refer to Extract A in your answer.

**(5)**

(b) Examine the likely impact of Thomas Cook's plan 'to reduce their airline emissions' (Extract B, line 6) on the social optimum position. Use an appropriate externalities diagram in your answer.

**(8)**

(c) With reference to Extract C, assess whether Thomas Cook's failure was caused by the principal-agent problem.

**(10)**

(d) With reference to Extract C, discuss the proposed government subsidy to prevent Thomas Cook from reaching its shut-down point.

**(12)**

(e) With reference to the information provided, discuss the decision by Jet2 to increase its package holiday prices.

**(15)**

**(Total for question = 50 marks)**

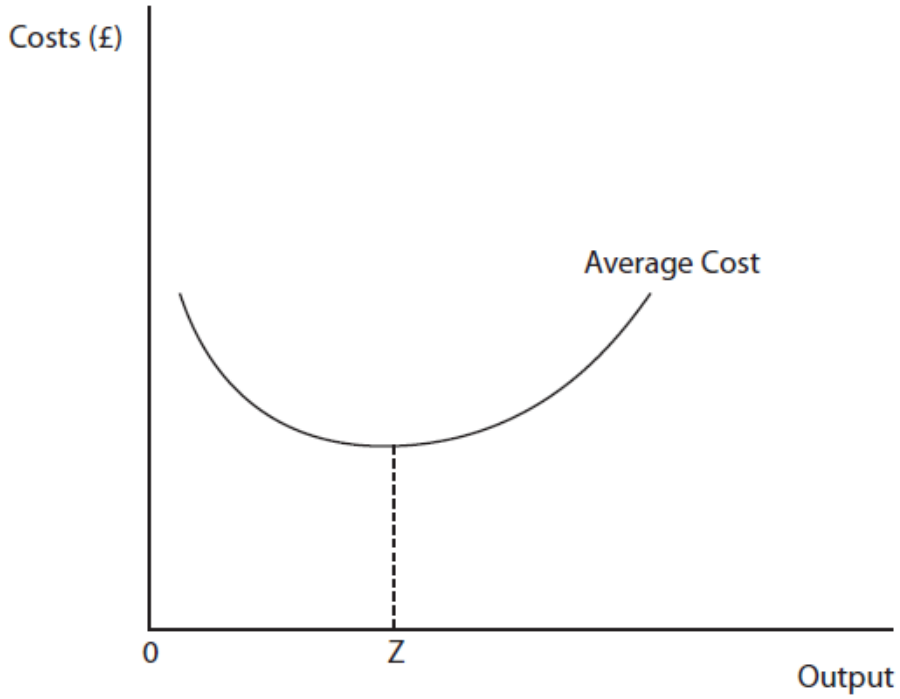
Q5.

**Use the data to support your answers where relevant. You may annotate and include diagrams in your answers.**

**Answer the question with a cross in the box you think is correct ☒. If you change your mind about an answer, put a line through the box ☒ and then mark your new answer with a cross ☒.**

The EU tradable pollution permits scheme is expected to become more effective by 2020, due to recent reductions in the number of tradable pollution permits.

The following illustrates the daily average cost curve for a doughnut producer:




(a) Explain what happens to total cost at output levels greater than Z.

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(b) At output levels greater than Z, which **one** of the following correctly identifies what will happen to the cost?

**(1)**

| | | Average fixed cost | Average variable cost | Marginal cost |
|---|---|---|---|---|
| ☒ | **A** | Falls | Falls | Rises |
| ☒ | **B** | Falls | Rises | Rises |
| ☒ | **C** | Rises | Rises | Falls |
| ☒ | **D** | Rises | Rises | Rises |

(c) For a luxury doughnut producer the average selling price is £2. The average variable cost is 40% of the selling price and its fixed cost per day is £300.
Calculate total costs per day assuming it produces 400 doughnuts per day.

**(2)**

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**(Total for question = 5 marks)**

Q6.

Blackberry made a loss of $4.4 billion in quarter 3, 2013 but continued to operate.

(a) Explain **one** condition under which loss-making firms might continue to operate in the short-run.

**(4)**

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(b) If Blackberry is currently a profit-maximising firm but changes its objective to sales maximisation, it can be deduced that Blackberry will move from setting prices at which:

**(1)**

**A** marginal revenue equals zero to where marginal revenue equals marginal costs

**B** marginal revenue equals marginal costs to where marginal revenue equals zero

**C** marginal revenue equals marginal costs to where average revenue equals average costs

**D** average revenue equals average costs to where marginal revenue equals marginal costs

Answer

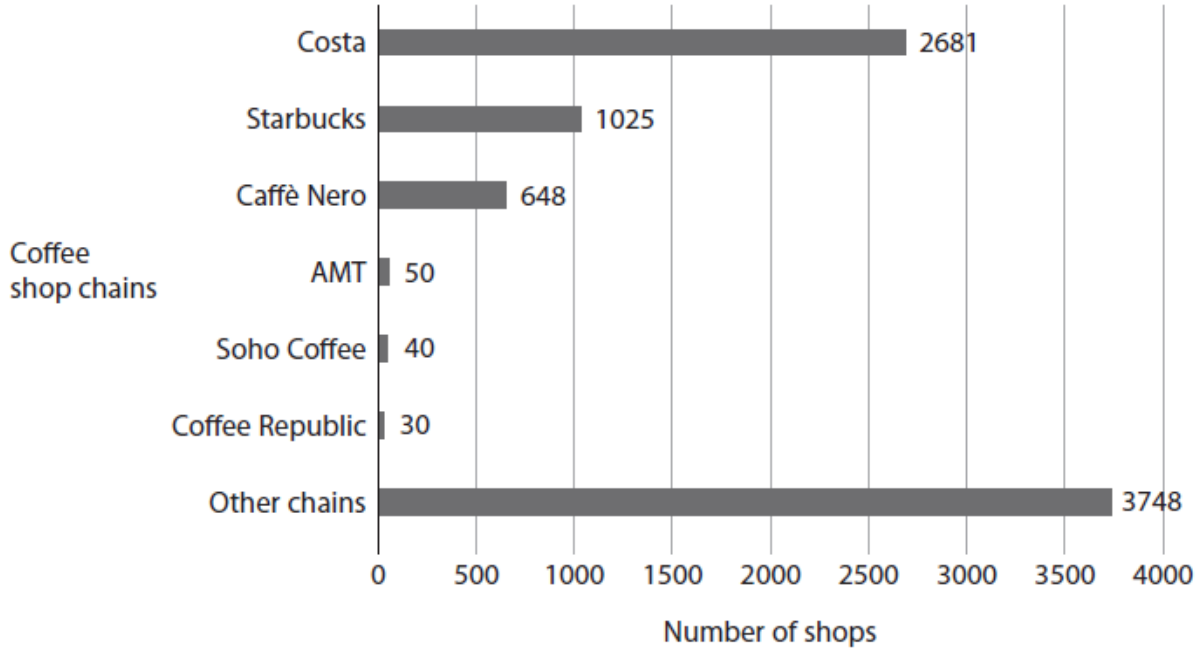
**(Total for question = 5 marks)**

Q7.

**Read Figures 1 and 2 and extracts A and B before answering this question.**

**UK branded coffee shop chains market**

**Figure 1: Branded coffee shops by number of shops in the UK in 2021**




(Source: adapted from https://www.statista.com/statistics/297863/leading-coffee-shop-chains-in-the-united-kingdom-uk-store-number/)

**Figure 2: International coffee price (Arabica bean), US dollars per kilogram**

| Month | Price | Change |
|---|---|---|
| Jan 2020 | 3.13 | – |
| Feb 2020 | 2.99 | –4.47% |
| Mar 2020 | 3.27 | 9.36% |
| Apr 2020 | 3.41 | 4.28% |
| May 2020 | 3.30 | –3.23% |
| Jun 2020 | 3.12 | –5.45% |
| Jul 2020 | 3.24 | 3.85% |
| Aug 2020 | 3.60 | 11.11% |
| Sep 2020 | 3.67 | 1.94% |
| Oct 2020 | 3.35 | –8.72% |
| Nov 2020 | 3.31 | –1.19% |
| Dec 2020 | 3.48 | 5.14% |

(Source: adapted from https://www.indexmundi.com/commodities/?commodity=other-mild-arabicas-coffee&months=12)

**Extract A**

**Tough market conditions for coffee shops – but coffee quality is king**

UK coffee shop chains have experienced slow growth opportunities and rising costs. In 2019 the UK market leader, Costa Coffee, opened over 60% fewer stores than in 2018, while Starbucks opened just three new stores overall in 2019.

By 2020, many costs were rising: staff shortages meant rising wages for baristas (trained coffeemakers), a 6.2% National Minimum Wage increase for over 25-year-olds and rising rents.

In a challenging UK economy, consumers placed coffee quality ahead of convenient location when choosing a coffee shop. This demonstrates the need for coffee shops to match rising expectations in the UK's increasingly crowded coffee shop market in order to stay competitive. Independent coffee shops (total 25 892 shops in 2020) remain a threat to the branded coffee shops as they pursue a unique luxury experience for customers. This will often focus on the atmosphere and customer service, luxury food and drink ranges and being a part of the local community. Independent coffee shops run on average profit as low as 2% of revenue, and many go out of business as new chains arrive in a locality.

In January 2020, Coca-Cola finalised its £3.9 billion takeover of market leader, Costa Coffee. The Coca-Cola company's stated aims are to maximise long-term returns to shareholders while being mindful of overall responsibilities such as supporting sustainable communities. Major brands, such as Costa, continue to lead coffee shop expansion in 2020 as competition intensifies.

(Source: adapted from https://www.worldcoffeeportal.com/Latest/InsightAnalysis/2020/February/5-UK-coffee-shop-market-dynamics-to-watch-in-2020)

**Extract B**

**Greggs aiming for 'coffee shop experience'**

Greggs is looking to increase its branded coffee shop market share after the British bakery chain achieved record profits and overtook Starbucks in the amount of coffee it served in the UK. Although Greggs will continue to focus on the food-to-go market, it will be investing in better coffee machines and providing WiFi. It wants one in three new outlets to have more seating. The company believes that it has the ability to take market share in two ways, by expanding its coffee range and at the same time enhancing the coffee shop experience. Greggs is modelling its plan on rival chain Pret A Manger, which has changed from focusing on food-to-go sales to mainly eating in. Greggs has transformed itself from an unremarkable seller of bread and pastries into one of the UK's most popular food-on-the-go chains, in part thanks to its embrace of vegan, gluten-free and healthy options as well as clever marketing that have changed its image.

(Source: adapted from Financial Times, 3 March 2020 https://www.ft.com/content/6fb6d73a-5d24-11ea-8033-fa40a0d65a98)

(a) With reference to Figure 1, calculate the three-firm concentration ratio for branded coffee shop chains.

**(5)**

(b) With reference to Figure 2 and your understanding of price elasticity, examine **two** factors that may cause significant changes in the international price of coffee beans.

**(8)**

(c) Profit maximisation is assumed to be the business objective of most firms. With reference to Extract A, assess whether this is the case for coffee shop owners.

**(10)**

(d) Using a cost and revenue diagram, discuss the likely impact of 'rising costs' for coffee shops on their profitability (Extract A, line 2).

**(12)**

(e) With reference to the information provided, discuss whether the coffee shop market is contestable.

**(15)**

**(Total for question = 50 marks)**

Q8.

Between 2010 and 2015 the average price of tea in the UK increased from £7.20 per kilo to £8.48 per kilo. Over the same period the quantity of tea purchased fell from 97 million kilos to 76 million kilos.

(Source: http://www.theguardian.com/lifeandstyle/shortcuts/2015/aug/05/brew-do-you-think-you-are-why-tea-needs-to-copy-coffee-in-order-to-survive)

(a) Assume that the change in the quantity of tea purchased was only caused by the change in the price of tea. Calculate the price elasticity of demand for tea in response to the rise in its price. You are advised to show your working.

**(2)**

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(b) Calculate the change in total sales revenue for UK tea retailers between 2010 and 2015. You are advised to show your working.

**(2)**

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(c) Estimates for the demand for black tea in the UK suggest that it is an inferior good. This implies it has a negative:

**(1)**

☒ **A** cross elasticity of demand

☒ **B** income elasticity of demand

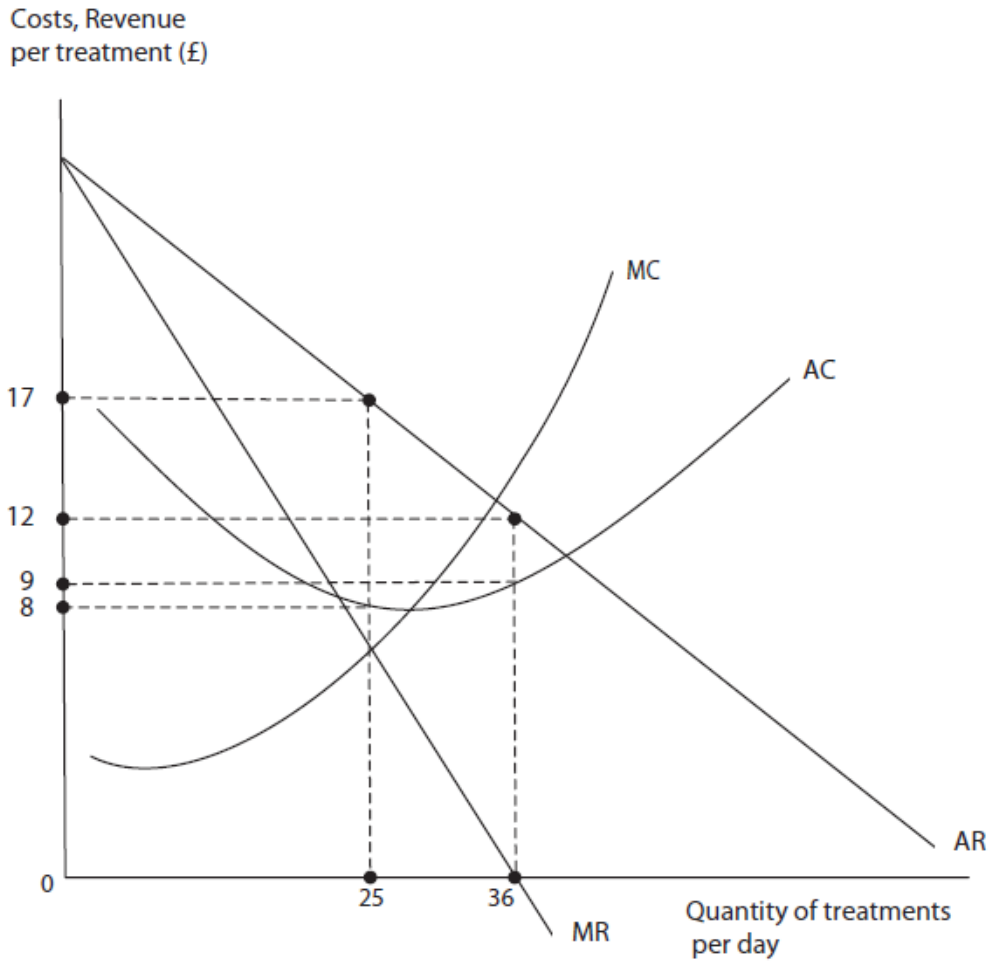
☒ **C** price elasticity of demand

☒ **D** price elasticity of supply

**(Total for question = 5 marks)**

Q9.

Emily owns and operates a nail ink salon. The diagram shows the cost and revenue curves for treatments at her nail ink salon. Initially, Emily sets her price to maximise profits.




(a) Calculate the **change in total supernormal profit** if Emily changes her objective from profit maximisation to revenue maximisation. You are advised to show your working.

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(b) Emily now decides to change her objective from revenue maximisation to sales maximisation. This change will lead to:

**(1)**

☒ **A** a decrease in the number of customers

☒ **B** a decrease in the price of treatments

☒ **C** an increase in productive efficiency

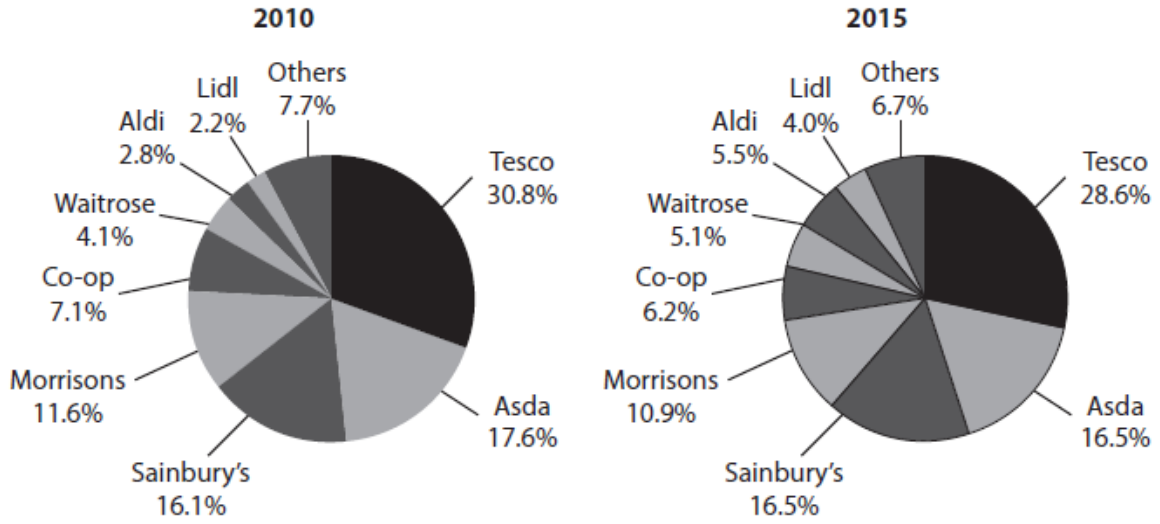
☒ **D** an increase in the level of profit

**(Total for question = 5 marks)**

Q10.

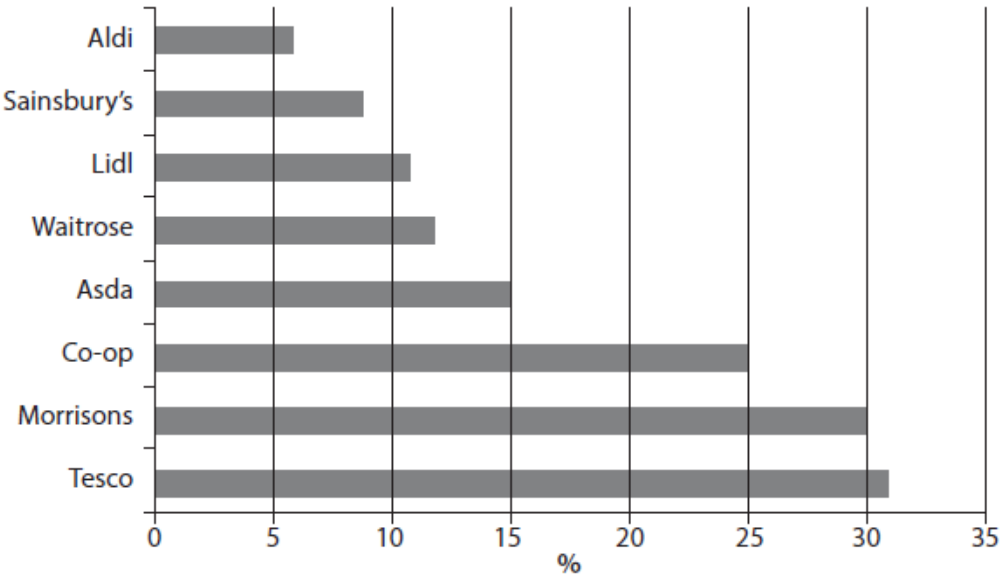
**Supermarket price war, food waste and possible mergers**

**Figure 1: Market shares by total revenue in the UK supermarket sector, 2010 and 2015**




(Source: Kantar worldpanel, http://www.kantarworldpanel.com/en/grocery-market-share/great-britain/snapshot/11.10.15/)

**Figure 2: Proportion of food suppliers reporting that the following supermarkets fail to meet the Groceries Code of Conduct, 2015.**




(Source: YouGov poll of more than 1100 food suppliers to supermarkets. Reported in The Times, 23 June 2015)

**Extract A**

## Supermarket price war puts pressure on their food suppliers

The number of food suppliers (to supermarkets) struggling to remain in business has increased by more than 50% over the past year as supermarkets engage in an intense price war. It has never been tougher for the UK's food suppliers according to a study by accountants Begbies Traynor. It blames aggressive price-cutting by the supermarkets and delays in payments to food suppliers as the main causes of the difficulties. Further problems include food suppliers being forced to pay excessive amounts for packaging specified by supermarkets and funding in-store promotions. Almost 90% of struggling food suppliers are small and medium-sized businesses.

The price war has contributed to food prices paid by consumers falling by 1.7% over the past two years.

The market shares of the big four supermarkets – Tesco, Asda, Sainsbury's and Morrisons – are under pressure as shopping habits change. Many consumers are switching from one main weekly shop to shopping more frequently at local discount stores such as Aldi and Lidl or purchasing goods online from other grocery retailers.

The big four supermarkets have responded by putting more pressure on their suppliers despite an investigation by the Groceries Code Adjudicator (GCA). The GCA has the power to fine supermarkets up to 1% of their annual sales revenue if they break the Groceries Code of Conduct. A YouGov study found considerable differences between the supermarkets in meeting the Code with Aldi performing well but Tesco badly. Despite the Groceries Code, many food suppliers are reluctant to complain for fear of losing contracts with the supermarkets.

(Source: adapted from 'Supermarket price war takes toll on UK food suppliers'. Rupert Jones, The Guardian, 20th July 2015)

## Extract B

## Food waste in the supply chain

A report from the British Retail Consortium reveals that supermarkets are directly responsible for around 0.2 million tonnes of food waste every year. This is due to the expiry of use-by-dates and poor handling of stock.

However, 4.1 million tonnes of food waste occurs annually in the food supply chain before it even reaches the supermarkets, indicating the existence of information gaps. The supermarkets are cooperating with food suppliers and farmers to try to reduce this waste. This involves improving forecasts for supply and demand of food and increasing the reliability of transportation and storage.

Consumers, the final stage of the supply chain, waste a further 7 million tonnes of food each year. This suggests irrational behaviour. Supermarkets are also working with consumers to reduce the waste by providing advice on how to store and use leftover food. The development of packaging designs to keep food fresher for longer is one of the innovations under way to reduce waste.

(Source: adapted from 'Supermarkets tally up food waste bill'. Will Nicholls, in Businessgreen, 19th January 2015. http://www.businessgreen.com/bg/news/2390792/supermarkets-tally-up-food-waste-bill)

## Extract C

## Proposed merger activity in the supermarket sector

Analysts at Société Générale, an investment bank, have recommended a merger between Sainsbury's and Morrisons. They claim it would lead to increased economies of scale and market power for the combined business. Such a merger between the third and fourth largest supermarkets in Britain would have been unrealistic a few years ago due to concerns of its impact in reducing competition. However, the chances of getting permission from the Competition and Markets Authority have increased following the growth of Aldi and Lidl. Giant mergers have been approved in other sectors such as Lloyds-HBOS (banking) and British Telecom-EE (telecommunications).

The suggested merger would have its challenges. There is considerable overlap between the locations of the stores and the enlarged company would require the rationalisation and co-ordination of hundreds of thousands of employees. A new expensive IT system is likely to be required and the underlying difficult market trends would remain in the food retailing industry.

(Source: adapted from 'Tesco-bury and AS-Morrisons. Could Britain's supermarkets be about to merge?' Graham Ruddick, in The Telegraph, 16th December, 2015. http://www.telegraph.co.uk/finance/newsbysector/retailandconsumer/11699724/Tesco-burys-and-AS-Morrisons.-Could-Britains-supermarkets-be-about-to-merge.html)

(a) With reference to Figure 1 and Extract A, explain **one** likely reason for the change in the four-firm concentration ratio of the supermarket sector between 2010 and 2015.

**(5)**

(b) With reference to Figure 2 and Extract A, discuss the possible impact of supermarket monopsony power on both food suppliers and consumers.

**(12)**

(c) Examine measures the government might use to restrict the monopsony power of supermarkets.

**(8)**

(d) Assess the extent to which 'information gaps' (Extract B, lines 5 and 6) and 'irrational behaviour' (Extract B, line 11) are the main causes of food waste in the UK.

**(10)**

(e) Discuss the likely problems for Sainsbury's and Morrisons if the suggested merger between them goes ahead. Refer to Figure 1, Extract C and your own knowledge in your answer.

**(15)**

**(Total for question = 50 marks)**

# Questions

Q1.

**Some questions must be answered with a cross in a box (☒). If you change your mind about an answer, put a line through the box (☒)and then mark your new answer with a cross (☒).**

**Use the data to support your answers where relevant. You may annotate and include diagrams in your answers.**

Disney+ is a streaming service that distributes films and television series produced by the Walt Disney Studios.

| | Disney+ subscribers (million) |
|---|---|
| November 2019 | 10 |
| December 2019 | 26.5 |
| February 2020 | 28.6 |
| April 2020 | 50 |

(Source adapted from: https://www.businessofapps.com/data/disney-plus-statistics/)

(a) *Ceteris paribus*, the most likely consequence of the above data is that Disney+ will experience an increase in its:

**(1)**

☒ **A** fixed costs

☒ **B** income elasticity of demand

☒ **C** price elasticity of demand

☒ **D** revenue

(b) Draw a supply and demand diagram to show the likely effect of the change in the number of subscribers on the market equilibrium for Disney+ services.

**(4)**



**(Total for question = 5 marks)**

Q2.

**Answer the question with a cross in the box you think is correct ☒. If you change your mind about an answer, put a line through the box ☒ and then mark your new answer with a cross ☒.**

Patrick Street Productions produces musicals. Its latest production is 'It's a Wonderful Life' and the total cost of this production is $200 000. The ticket price is $40. The theatre has a capacity of 300 seats. The company aims for revenue maximisation. If this is achieved, revenue from ticket sales will cover 30% of total costs. Charitable donations contribute 12.5% towards total cost and a government subsidy ensures the production covers all of its costs.

(Source adapted from: https://www.cbc.ca/news/canada/british-columbia/a-bit-of-a-desperate-time-as-costs-rise-professional-theatre-companies-survive-rather-than-thrive-1.5489733)

(a) Calculate the total revenue from ticket sales for 'It's a Wonderful Life', assuming it is shown only five times, all at full capacity. You are advised to show your working.

**(2)**

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(b) Calculate the value of the government subsidy necessary for this production to cover all of its costs.

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(c) Which **one** of the following conditions is necessary for revenue maximisation to occur?

**(1)**

☒ **A** Average revenue equals average cost

☒ **B** Average revenue equals marginal cost

☒ **C** Marginal revenue equals average revenue

☒ **D** Marginal revenue equals zero

**(Total for question = 5 marks)**

Q3.

The number of individual weekly ticket sales from UK National Lottery games operated by Camelot was 73 million in the financial year 2015–2016.

The sale price of each lottery ticket was £2. This figure included 24 pence of tax revenue on each ticket sold.

(a) Calculate the weekly revenue received by Camelot after paying the tax to the government. You are advised to show your working.

**(2)**

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Research conducted for HMRC estimated the cross elasticity of demand for using gaming machines to be 1.28 in response to changes in the price of national lottery tickets.

(Source: https://www.gov.uk/government/uploads/system/uploads/ attachment_data/file/322845/report313.pdf)

In October 2013 Camelot increased the price of a national lottery ticket from £1 to £2.

(b) Explain the likely impact of the price increase of national lottery tickets on the demand for using gaming machines.

**(2)**

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In 2016 a coastal flood defence scheme was completed at Broomhill Sands in Kent, protecting

people, homes and businesses. A £30 million grant from the National Lottery paid for the scheme.

(Source: https://www.gov.uk/government/news/30-millionproject- set-to-reduce-flood-risk-in-kent)

(c) The most likely reason for this grant is to ensure the:

**(1)**

☒ **A** exclusivity of Broomhill Sands

☒ **B** provision of a private good

☒ **C** provision of a public good

☒ **D** rivalry of Broomhill Sands

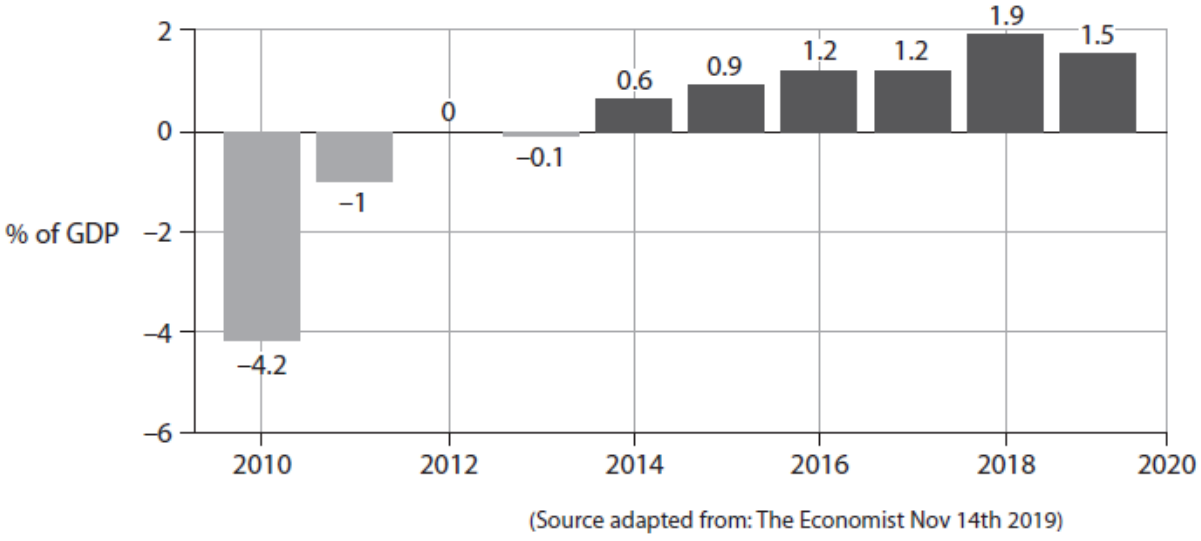
**(Total for question = 5 marks)**

Q4.

**Read Figures 1 to 4 and extracts C and D before answering this question.**

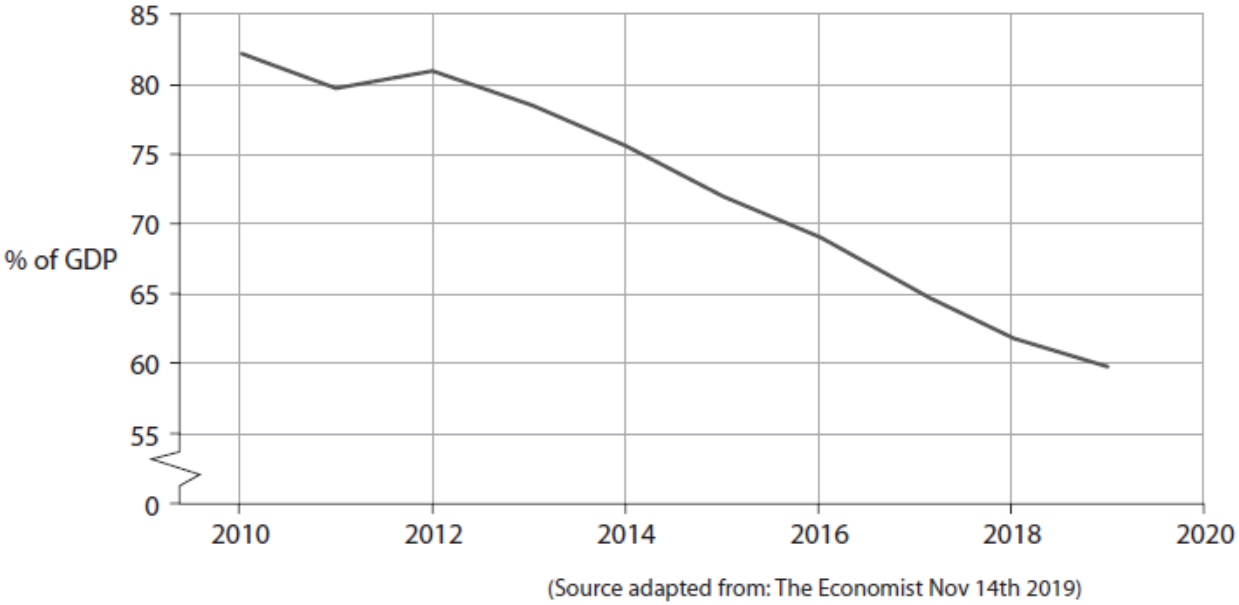
**The German economy**

**Figure 1: German government budget balance, percentage of GDP, 2010 to 2019**



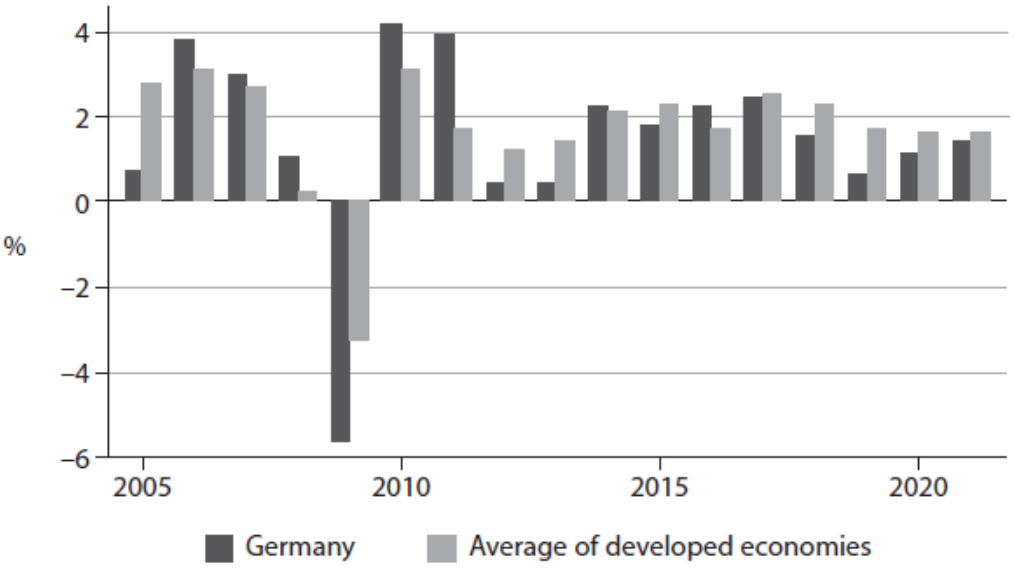

(Source adapted from: The Economist Nov 14th 2019)

**Figure 2: German national debt, percentage of GDP, 2010 to 2019**



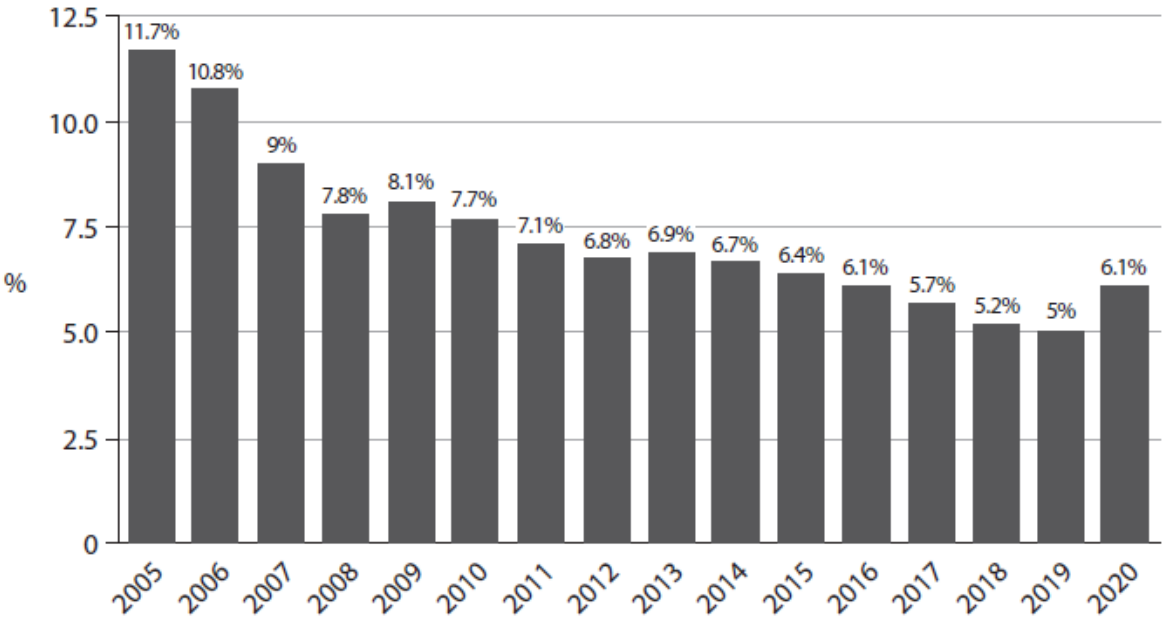

(Source adapted from: The Economist Nov 14th 2019)

**Figure 3: Annual percentage change in real GDP, Germany and average of developed economies, 2005 to 2021 (forecasted data for 2020 and 2021)**




(Source adapted from: IMF and German Federal Statistical Office)

**Figure 4: Unemployment rate in Germany, percentage of labour force, 2005 to 2020 (2020 figure is forecasted)**




(Source adapted from: bundesagentur für arbeit.de and https://www.ft.com/content/5486b247-c73e-4887-a2b2-528b23e301a6)

## Extract C

### Why Germany keeps to budget rules despite a slowdown in growth

Germany's economic boom is over, as it has entered recession. During the last ten years of economic growth well over 4 million jobs were created.

The fear of recession has revived a debate in Germany: should the government spend more to stimulate growth? It is written into the German constitution that the fiscal deficit cannot be greater than 0.35% of GDP, once the effects of the economic cycle have been removed. Germany's budget has been in surplus since 2014 and the government is always reluctant to increase spending which would create a deficit. In 2018, aided by booming employment and low interest costs on existing debt, the budget ran to a surplus 1.9% of GDP.

Germany's main trading partners have long been angered by German fiscal policy. The French President criticised Germany's budget and current account surpluses that "always occur at the expense of others".

Large parts of Germany's infrastructure need significant investment. As the economy has slowed, a decision to run a balanced-budget policy has become harder to defend. In wealthy regions of Germany, crumbling schools have been closed for fear of collapse, and information and mobile technology on a wide scale needs to be modernised. The World Economic Forum reported that accessibility of fibre optic broadband also "remains the privilege of the few". However, private sector firms, such as major motor manufacturers, are still willing to invest in new technology and the profitability of some of these firms, in the long run, benefits as a result.

The state development bank puts Germany's investment shortfall at €138 billion (£120 billion). Arguments for a much more expansionary fiscal policy have failed to influence government policy. Big government programmes, such as a recent package to reduce Germany's carbon emissions, are only implemented when they satisfy fiscal rules.

(Source adapted from: The Economist Nov 14th 2019 and https://www.ft.com/content/3cec4908-d164-11e9-8367-807ebd53ab77 7th September 2019 and https://www.ft.com/content/198f072e-4e42-11ea-95a0-43d18ec715f5 and https://www.ft.com/content/d89d9404-c586-11e9-a8e9-296ca66511c9 and https://www.ft.com/content/8f87c03c-93dc-11e8-b67b-b8205561c3fe)

## Extract D

**Germany drops to number 7 in the Global Competitiveness Index**

Despite being the largest economy in the European Union, Germany's competitiveness is declining, according to the World Economic Forum (WEF). Germany dropped four places in the WEF's Global Competitiveness Index, coming in as the seventh-most competitive economy. Out of the 103 indicators used in the report, Germany received lower scores in 53 areas in 2019.

(Source: https://www.dw.com/en/germany-falls-in-global-competitiveness-ranking/a-50745071 8 October 2019)

(a) Explain **one** reason why a country such as Germany wants to avoid an increase in the national debt relative to GDP (Figure 2).

**(5)**

(b) Examine **two** likely effects of the forecast change in the rate of unemployment between 2019 to 2020, on firms in Germany. Refer to Figure 4 in your answer.

**(8)**

(c) Discuss the likely impact of investment in new technology on the profitability of firms in Germany, as described in Extract C line 20. Use a cost and revenue diagram to support your answer.

**(12)**

**EITHER**

(d) Evaluate the microeconomic and macroeconomic factors which are likely to determine the rate of economic growth in Germany relative to other developed economies.

**(25)**

**OR**

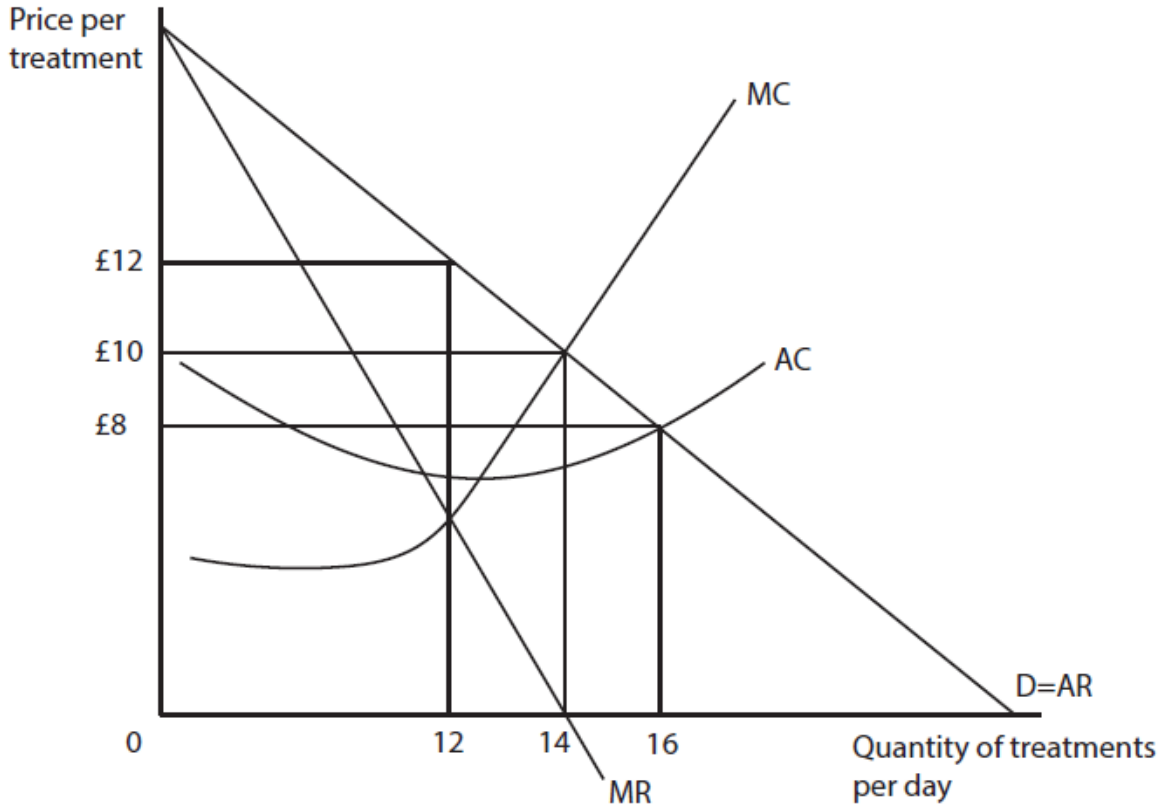
(e) Evaluate the microeconomic and macroeconomic impacts of 'a much more expansionary fiscal policy' (Extract C line 23) on the German economy.

**(25)**

**(Total for question = 50 marks)**

Q5.

Francesca owns and runs a beauty salon. The diagram shows the cost and revenue curves for treatments at her beauty salon. Francesca sets her prices using profit maximisation.




(a) Calculate the change in total revenue if Francesca changes her objective from profit maximisation to sales maximisation.

**(4)**

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(b) As demand for beauty treatments increased, Francesca decided to take on additional staff. A likely advantage of applying the division of labour is a reduction in

**(1)**

**A** levels of production

**B** boredom within the workforce

**C** costs of production per treatment

**D** output per worker

Answer

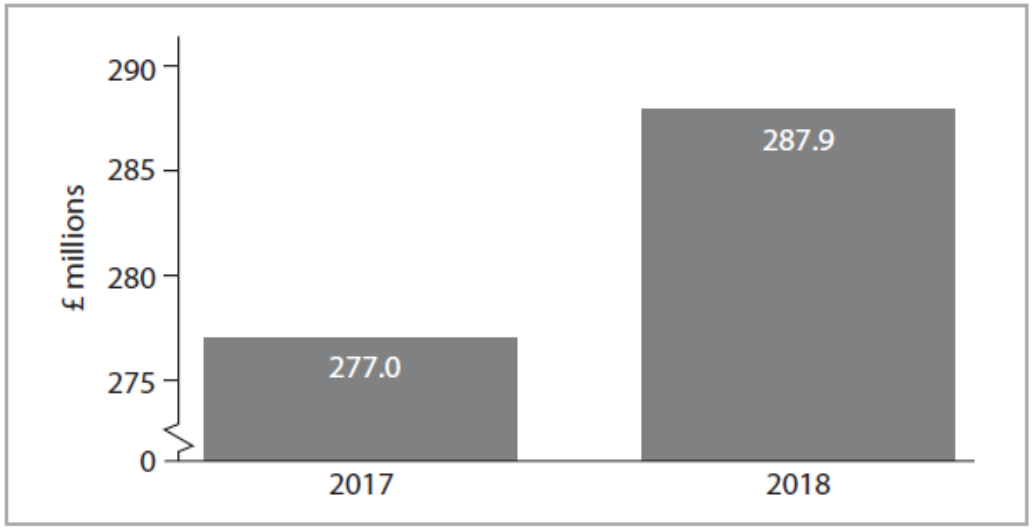
**(Total for question = 5 marks)**

Q6.

**Use the data to support your answers where relevant. You may annotate and include diagrams in your answers.**

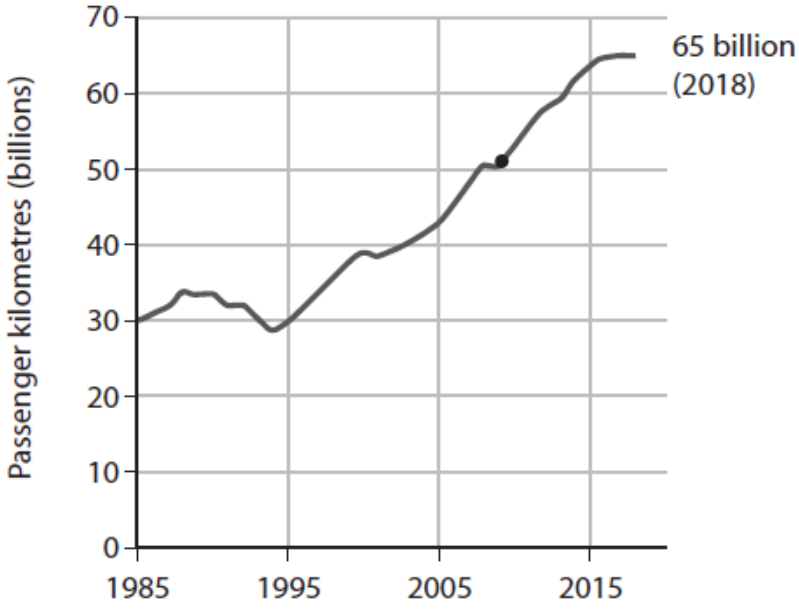
**The UK Rail Industry**

**Figure 1: UK government subsidy to Northern, a train operating company in Northern England**




(Source adapted from: https://www.theyworkforyou.com/wrans/?id=2018-10-18.181280.h)

**Figure 2: Rail passenger kilometres travelled per year in the UK, billions**




(Source adapted from: fullfact.org)

**Figure 3: Price of a single off-peak train journey, Edinburgh to Leeds Saturday 22nd December 2018 19:00 hours**

| Adult | Young Persons (16–25) Railcard |
|---|---|
| £105.30 | £69.50 |

(Source: https://www.lner.co.uk/buy-tickets/booking-engine)

**Extract A**

**The case for nationalisation**

Privatisation has not made the rail industry cheaper to operate, despite the promise from one government source that it would see private companies bringing: "more competition, greater efficiency and a wider choice of services".

One reason, suggest the critics, is fragmentation. Instead of pushing British Rail into the private sector as a single supplier the government chose to break it into three components of track, train operators and rolling stock i.e. the trains and carriages. This has encouraged each part of the rail industry to prioritise its own profits rather than collaborating to improve the system.

Privatisation, meanwhile, never really worked. The rail network of 2 500 stations and 32 000 km of tracks was renationalised in 2001. This has encouraged the government's transport secretary, a supporter of private sector involvement, to argue that the state Network Rail monopoly should be removed so that companies can bid to build new rail lines to upgrade the railway.

The privately-owned train operators are now the subject of fierce criticism, due to overcrowding and cancelled services. Private companies are supposed to compete to win a bid to be the train operator for a region for a short number of years. However in recent years the number of private companies bidding or renewing their contract as rail operators has fallen. In May 2018 the government rescued the East Coast line by renationalising it. The line had been run by the private rail operator Virgin Rail, which was suffering lower passenger numbers and revenue than forecast.

Some argue that there is a simple solution: reunite track and train in the only feasible manner, nationalisation.

(Source adapted from: https://www.ft.com/content/d82848ca-f7ba-11e7-88f7-5465a6ce1a00)

**Extract B**

**Southern Rail boss paid £495 000**

The Chief Executive of Southern Rail, the private-sector train operator that has become associated with delays, losses, cancellations and strikes, was paid £495 000 last year. This increased calls for nationalisation and a maximum wage for executives at companies with government contracts. In contrast the average base pay for a train driver in the UK is £47 705, although they can earn up to £63 000.

Nearly a third of Southern Rail trains were late in 2016 as it tried to deal with a labour dispute that involved extensive strike action. The rail trade unions are opposed to planned changes to the role of train guards, which they claim will put passenger safety at risk.

(Source adapted from: Rob Davies, The Guardian 10 April 2017
https://www.theguardian.com/business/2017/apr/10/southern-rail-boss-double-pay-rise)

(a) Refer to Figure 1. Explain the likely effect of the change in subsidy levels between 2017 and 2018 on rail fares.

Include a supply and demand diagram in your answer.

**(5)**

(b) With reference to Figure 2, examine **two** possible factors which may have influenced demand for rail travel since 2008.

**(8)**

(c) Assess whether complete nationalisation of the rail industry might protect employees.

**(10)**

(d) With reference to Extract A, paragraph 3, discuss whether the rail network can be considered to be a natural monopoly.

**(12)**

(e) Discuss the likely benefits of price discrimination to rail passengers. Use a diagram to support your answer.

**(15)**

**(Total for question = 50 marks)**

Q7.

**Use the data to support your answers where relevant. You may annotate and include diagrams in your answers.**

The International Energy Agency has predicted that oil use by cars will peak in 2025 because of the increasing number of drivers switching to electric vehicles.

(Source adapted from: https://www.thetimes.co.uk)

Evaluate the likely microeconomic consequences of consumers shifting from vehicles powered by fuel obtained from oil to electric-powered vehicles.

**(Total for question = 25 marks)**

Q8.

**Mozambique**

**Figure 2: Interest rates (bank rate of the central bank) and inflation rates of selected African countries, 2017**

| Selected country | Central bank rate of interest | Inflation rate (CPI measure) |
|---|---|---|
| Congo (D.R.) | 14% | 13.8% |
| Ghana | 21% | 9.1% |
| Kenya | 10% | 10.1% |
| Malawi | 18% | 21.4% |
| **Mozambique** | **21.75%** | **18.0%** |
| Nigeria | 14% | 21.1% |

(Source: official government websites, and other news sources, July 2017)

## Extract D

### Rising debt levels in Africa

Increases in national debt have brought several African governments towards a debt-servicing crisis when the repayment of debt and interest become unsustainable. Between 2010 and 2015, many sub-Saharan countries raised debt totalling more than £20 billion. Back then, with commodity prices soaring and foreign loans available at very low interest rates, everyone agreed that borrowing was the way to grow an economy with expansionary fiscal policy. Since 2015, some African governments – beneficiaries of big debt write-offs at the start of the century – have taken to private debt markets too eagerly, leaving them with heavy repayment schedules at a time of lower commodity prices.

Until recently, the International Monetary Fund (IMF) has played down African debt concerns, pointing to better management of public resources and greater transparency. But it was shaken by Mozambique's default on more than £2 billion of secret loans used to purchase a non-existent tuna-fishing fleet, raising fears of hidden debt in other African countries with similar levels of corruption. The median level of debt in sub-Saharan Africa had risen sharply from 34% of gross domestic product in 2013 to 48% in 2017. Although that is low by international standards, analysts said debt burdens were heavier than they appeared because of most African countries' low tax base. "The real thing to look for is debt to revenue, or debt-service as a percentage of government spending," said John Ashbourne, Africa Economist at Capital Economics. In several countries, he said, debt payments were above 20% of government revenue, with an opportunity cost in terms of government spending.

(Source: adapted from African debt worries intensify as levels near tipping point by David Pilling © Financial Times 2017 https://www.ft.com/content/939808dc-b4d8-11e7-a398-73d59db9e399)

## Extract E

### Mozambique's economic stability is being put to the test

The economy of Mozambique, which gained independence from Portugal in 1975, has continued to under-perform. Large-scale emigration, especially of skilled workers, economic dependence on South Africa, a severe drought, a prolonged civil war and political tensions have hindered the country's development. More than half of Mozambique's 26 million people continue to live below the poverty line.

GDP growth declined to 3.6% in 2016 due to fiscal tightening and a slowdown in foreign direct investment. A weak manufacturing sector employs just 3.2% of the population, and is made up of small enterprises (90%), many of which were set up with the aid of microfinance. Traditional export earnings dropped due to depressed global demand. In addition a wide-scale drought seriously affected agricultural production. Foreign currency inflows have weakened – as large-scale gas projects were put on hold, and 14 external lenders suspended direct budget support, as a lesson to be learned from the tuna-fleet scandal. The state budget deficit was 10.7% of GDP in 2017. High interest rates have reduced aggregate demand, and import costs added to inflation following further depreciation of Mozambique's currency, the *metical*, to a new low of 100 meticals to £1.

Mozambique needs urgently to improve its investment environment and confidence in its institutions. The World Economic Forum's global competitiveness ranking placed Mozambique 136 out of 137 countries.

Longer term, Mozambique's economic prospects are promising. There has been progress in talks on restoring international confidence in the government's running of the economy, leading to a lasting and sustainable agreement between rival political groups. The development of gas fields off Mozambique's coast discovered in 2011 is set to transform the economy, coming into production in the 2020s. A rise in coal and electricity exports should help growth to increase. But in the short term, it remains uncertain whether Mozambique can deliver badly needed economic stability.

(Source: adapted from http://www.africaneconomicoutlook.org/en/country-notes/mozambiqua and https://www.chathamhouse.org/expert/comment/mozambique-s-stability-being-put-test 6 October 2017 Dr Alex Vines OBE)

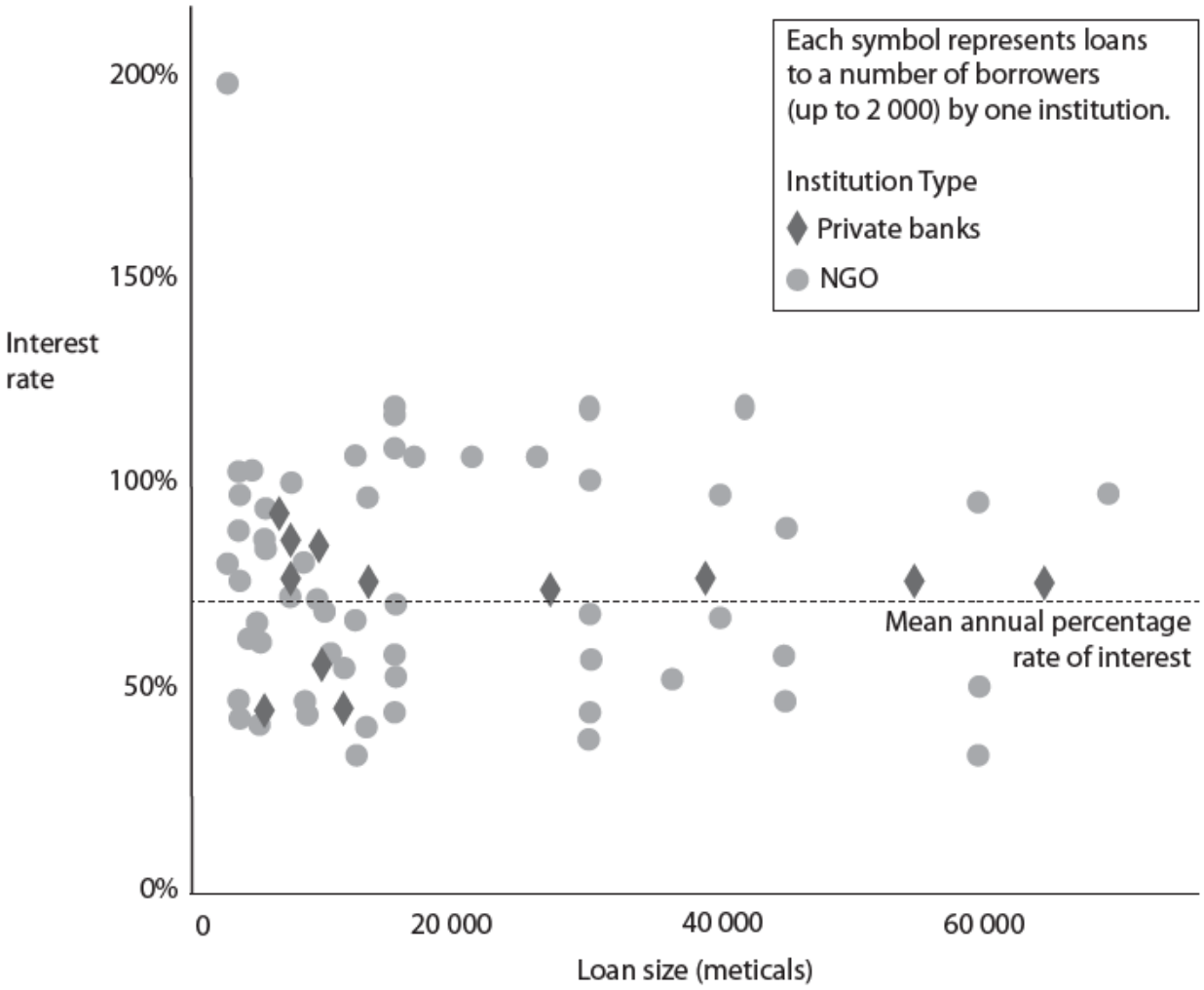
## Extract F

## Microfinance in Mozambique

Microfinance in Mozambique started in the late 1980s through projects initiated by international relief organisations. The sector has expanded to include many private banks and non-government organisations (NGOs), see Figure 3. This has resulted in wider use (over 100 000 borrowers) and many new business start-ups which could not have gained finance from any other source. Evidence suggests that there is unfulfilled demand for microfinance and a large potential for expansion.

(Source: adapted from http://www.mftransparency.org/microfinance-pricing/mozambique/)

## Figure 3: The cost of microfinance loans in Mozambique, 2015




(Source: http://www.mftransparency.org/microfinance-pricing/mozambique/)

(a) With reference to Extract D line 21, explain why 'opportunity cost' is a problem for governments of developing countries when servicing debt.

**(5)**

(b) Examine **two** reasons, apart from access to finance, why 90% of the manufacturing sector in Mozambique 'is made up of small enterprises' (Extract E, line 9).

**(8)**

(c) Discuss whether borrowers benefit from microfinance. Make reference to Mozambique in your answer.

**(12)**

**EITHER**

(d) Evaluate the microeconomic and macroeconomic factors, apart from access to credit and banking, influencing growth and development in Mozambique.

**(25)**

**OR**

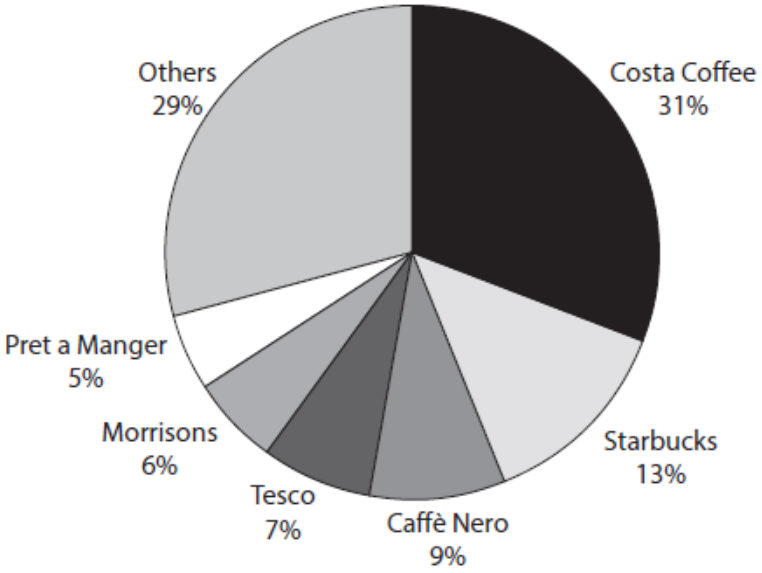
(e) Evaluate the likely microeconomic and macroeconomic effects of relatively high inflation rates in many African countries.

**(Total for question = 50 marks)**

Q9.

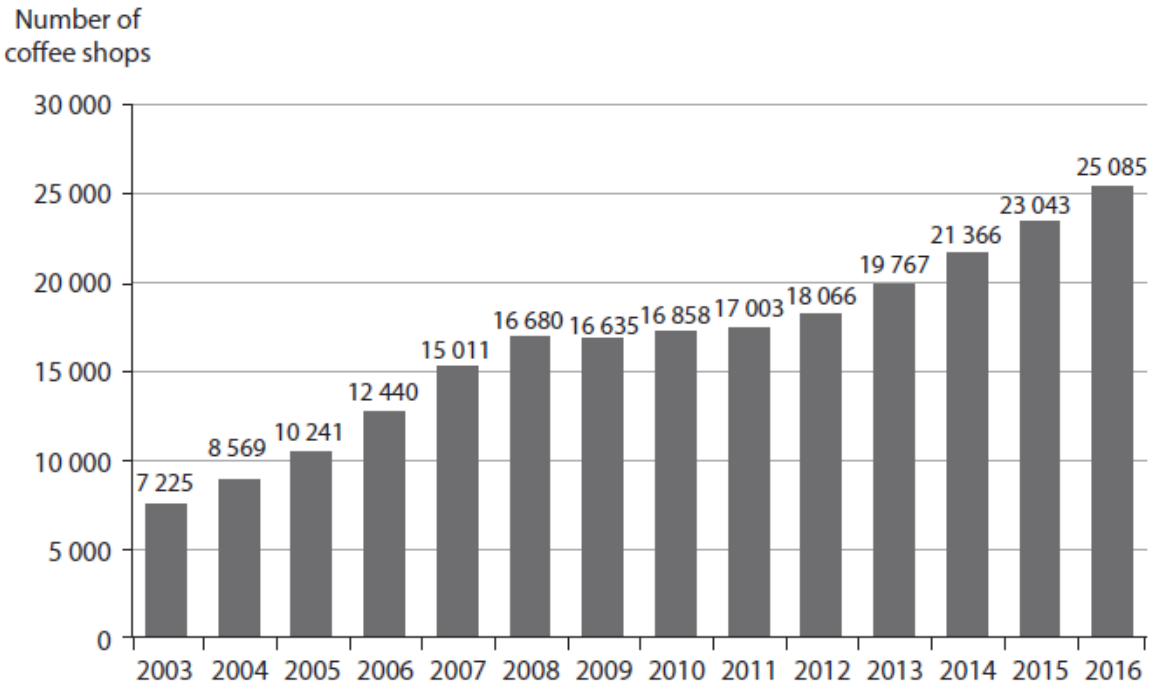
**Branded coffee shops**

**Figure 1: Market share of UK branded coffee shops, 2015, percentages**




(Source: http://metro.co.uk/2015/12/14/the-uks-most-popular-coffee-shop-has-been-revealed-5564569/)

**Figure 2: Number of Starbucks coffee shops worldwide, 2003–2016**




(Source: https://www.statista.com/statistics/266465/number-of-starbucks-stores-worldwide/)

**Figure 3: Price comparison in selected London coffee retailers, February 2017**

| Coffee style | Starbucks | Costa Coffee | Caffè Nero | Greggs | McDonald's |
|---|---|---|---|---|---|
| **Espresso Double** | £2.00 | £2.00 | £1.70 | £1.65 | £0.99 |
| **Latte Medium** | £2.60 | £2.50 | £2.50 | £1.80 | £1.79 |
| **Latte Large** | £2.80 | £2.70 | £2.80 | £2.10 | £2.09 |

(Source: data collected from coffee shops in Holborn, London on 25 February 2017)

**Extract A**

**Starbucks in Britain – a loss-making business?**

Coffee shops are among the most profitable parts of the food and drink industry, and few are doing quite as well as Starbucks, a US-based transnational company. Starbucks may be complaining of adverse global market conditions but that did not stop the world's biggest coffee chain from reporting record annual profits in 2016. It made a profit of almost US$4.2 billion for the year, up 16% on 2015. That was mainly the result of a strong performance in its biggest market, America, where revenue rose 11%. The fastest growth was in the China and Asia Pacific region, with revenue up 23%. Howard Schultz, the CEO of Starbucks, said its Chinese coffee shops were the most efficient and profitable. While Starbucks still makes most of its profit in the US, Mr Schultz has said expansion in China will secure its future for "decades to come" and announced plans to more than double the number of shops in China to 5 000 by 2021.

However its British subsidiary, at first glance, appears to be doing less well. It has announced its first ever profit in Britain in 2015 – of just £1 million – despite opening its first coffee shop in the UK in 1998. It now has 849 UK outlets. The main reason why Starbucks has reported persistent losses in the UK is not due to a lack of demand for its coffee, but to minimise its tax bill. It is claimed that some of Starbucks' revenue earned in the UK is transferred to its Dutch subsidiary, which is charged lower rates of tax.

Starbucks is not finding life as easy in Britain as in the USA. It faces competition from home-grown chains such as Costa and Caffè Nero. Accusations of tax avoidance have also damaged Starbucks' sales to the benefit of its competitors. A survey found that a third less people rated Starbucks as their preferred coffee shop than they did before the tax-avoidance allegations were first published.

These issues have forced Starbucks to change its strategy. It has slowed down its expansion plans in the UK and has closed 67 underperforming coffee shops over the past year. It has also tried to repair its reputation by transferring its European headquarters from Amsterdam to London.

(Sources: adapted from *The Economist* 14 February 2015 http://www.economist.com/news/business-and-finance/21643271-tax and Starbucks company report 2016 and http://s21.q4cdn.com/369030626/files/doc_financials/2015/Starbucks-Fiscal-2015_Financial-Highlights.pdf)

## Extract B

## Tax on disposable coffee cups?

Two and a half billion disposable cups are thrown away every year in the UK, that is, seven million every day. Only one in 400 is recycled. The UK Environment Minister has suggested that a coffee cup tax could work in a similar manner to the plastic bag charge. The 5 pence a bag charge has led to an 85% reduction in the number of bags being given out since October 2015. It is estimated that introducing a tax on disposable coffee cups would cut usage by two billion every year. One environment spokesperson, Kate Parminter, said: "We've seen how dramatically a small charge has affected public behaviour when it comes to the plastic bags and it is clearly time to extend it to coffee cups. Most people purchase a tea or coffee and throw away the cup without even thinking about it, but a charge would increase our awareness of the environmental impact."

In response, another MP welcomed her comments but said he did not believe a tax was the solution. He said: "My initial reaction is charging 5p or 10p for the cup will not work. It will not encourage people to take their own cups in if a coffee goes up from £2.60 to £2.65. I suspect a more technological answer is what we need – either the composition of the disposable cups being changed so they're more easily recyclable, or changing the technology in the recycling."

Disposable coffee cups contain a plastic coating inside the cups which prevent them from becoming soggy, making them difficult to recycle. There are just two specialist facilities in the UK that have the required equipment to separate plastic from paper for recycling. Almost no recycled paper is used in the production of disposable cups, meaning that some 43 000 trees must be cut down annually to keep up with the demand. $CO_2$ emissions of around 83 000 tonnes are generated every year for their production.

(Sources: adapted from http://www.independent.co.uk/news/uk/politics/disposable-coffee-cups-could-be-taxed-like-plastic-bags-environment-minister-says-a6938126.html 05/09/16 and https://www.cchdaily.co.uk/lib-dems-call-5p-plastic-bag-tax-coffee-cups)

**Extract C**

**German city of Freiburg takes action on cutting the use of disposable coffee cups**

The 'Freiburg cup', made from dishwasher-proof plastic, can be reused hundreds of times. Cups are issued with a one-euro deposit, and can be returned to any of the participating coffee shops in the German city. The cups, which are provided to coffee shops by local councils, are washed in the cafés and bakeries that have signed up to the scheme before being reused. 56 coffee retailers have signed up, and 10 000 cups are being used.

One of the main obstacles facing a wider-reaching scheme, however, is the number of café chains in Germany that are unwilling to use unbranded multi-use cups, particularly Starbucks and McDonald's. Starbucks already offers a discounted coffee for customers with a multi-use cup, but only if it is bearing the unmistakable Starbucks logo.

(Source: adapted from http://www.dw.com/en/germanys-love-for-coffee-to-go-leaves-environmental-groups-demanding-action/a-36689719)

(a) With reference to Figure 1, briefly explain the market structure that best describes the UK branded coffee shop market.

**(5)**

(b) With reference to Figure 3 and other information provided, discuss the price and non-price strategies that Starbucks may use to increase profitability.

**(12)**

(c) Examine the advantages of using an indirect tax as a means of reducing the use of disposable coffee cups.

**(8)**

**EITHER**

(d) Evaluate the microeconomic and macroeconomic factors that may influence Starbucks' decision whether to expand in a particular country.

**(25)**

**OR**

(e) With reference to the information provided and your own knowledge, evaluate the microeconomic and macroeconomic effects of increased UK demand for coffee at branded coffee shops.

**(25)**

**(Total for question = 50 marks)**

Q10.

**Markets for food and drinks high in fat, salt or sugar (HFSS)**

**Figure 1: UK market share of potato crisps, 2017**

| Firm | Brand | Size | Market share of firm | Market share of product | Price (£) |
|---|---|---|---|---|---|
| *Walkers* | All Walkers | | *55.3%* | | |
| | *of which:* *Regular Standard* | 35 g | | 28.1% | 0.45 |
| | *Regular Max* | 50 g | | 7.4% | 0.63 |
| | *Sensations* | 40 g | | 2.0% | 0.59 |
| | *Doritos* | 40 g | | 4.7% | 0.45 |
| | *Other* | | | 13.1% | |
| *KP* | KP | 50 g | *22.7%* | | 0.52 |
| *Tayto* | Golden Wonder | | *4.2%* | | |
| | | <40g | | 3.1% | 0.38 |
| | | 40g+ | | 1.1% | 0.72 |
| Other | Other | | *17.8%* | | |

(Source: adapted from https://academic.oup.com/restud/article/3108825/The-Effects-of-Banning-Advertising-in-Junk-Food 6 April 2017)

**Extract A**

**The effects of a total ban on advertising of HFSS foods**

Food and drinks which are high in fat, salt or sugar (HFSS) tend to be sold in highly concentrated markets. Tough new rules banning advertisements for HFSS products, such as those for confectionery, fizzy drinks and potato crisps, come into effect in July 2017 as a means to reduce consumption. The rules apply to media targeted at under-16s and will mean a major reduction in the number of advertisements children see for HFSS products in posters near schools, in films targeted at children, on catch-up television and in social media if it is directed at children.

There are three main factors that will determine the effectiveness of the intervention: first, whether advertising acts to expand the market share or steal rivals' market share. Secondly, how firms in the market adapt their behaviour in response to the ban. Thirdly, what substitute products do consumers turn to if they opted out of the targeted market.

Results from a recent survey in the UK suggest that the total quantity of crisps sold would fall by around 15% in the presence of an advertising ban, or by 10% if firms respond with price cuts, since the ban acts to make the market more competitive and firms respond to the ban by, on average, lowering their prices.

The survey showed that following a ban, consumers are more likely to switch to another junk food than to a healthy food, which (in addition to the pricing response of firms) acts to partially offset any health gains from the policy.

(Source: adapted from The Effects of Banning Advertising in Junk Food Markets, Dubois, Pierre; Griffith, Rachel, Review of Economic Studies Copyright © 2017, Oxford University Press https://academic.oup.com/restud/article/3108825/The-Effects-of-Banning-Advertising-in-Junk-Food 6 April 2017 and https://www.asa.org.uk/news/tougher-new-food-and-drink-rules-come-into-effect-in-children-s-media.html 30 June 2017)

## Extract B

### Taxing HFSS foods and subsidising healthy eating widens inequality

Since low-income groups spend a higher proportion of their income on food and tend to eat less healthily, they are the main targets of taxes on products that are high in fat, salt or sugar (HFSS). Subsidies on healthy food are seen as an alternative policy approach to encourage healthy eating. While data on the impact of such policies are scarce, a recent study on the distributional impacts of HFSS taxes and healthy food subsidies found that these actually widened health and fiscal inequalities. The policies tend to be regressive and favour higher-income consumers. Taxes on unhealthy food increase prices which have a greater impact on low income groups rather than higher income groups. Lower income groups prefer to buy HFSS food.

Subsidies encouraged all income groups to buy more fruit and vegetables. However, those on higher incomes proved more responsive and the average share of budget spent on healthy food actually increased for the higher income groups who were more likely to buy the subsidised healthy food and then spend the savings they had enjoyed on yet more healthy food. The diets of the higher income groups before the subsidy tended to be healthier. The choices of the higher income groups are more responsive to price changes. By contrast, lower income groups, if they responded to lower prices, often used the money saved to buy unhealthy items or something else entirely. The long-term benefits of a healthier diet are harder to grasp for consumers when information gaps exist. Often the immediate boost of a tasty treat is more appealing. Taxes and subsidies do not change that. Other strategies are needed to promote healthy eating, especially education.

(Source: adapted from Economist 5 October 2017 https://www.economist.com/news/finance-and-economics/21730033-study-suggests-lower-income-families-end-up-paying-more-their-food-taxing-fat and https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3031005 The Economic Journal September 2017 Vol 127 Issue 604)

**Extract C**

**Tax on fatty foods in Denmark is an economic disaster**

Denmark introduced a specific tax on saturated fat in October 2011. Recognised as a world-leading public health policy, it was abandoned just 15 months later having been both an economic and political disaster.

Indirect taxes of this sort are invariably regressive, disproportionately affecting the elderly and the poor. The specific tax led to prices rising on average 15% for highest-fat products, yielding a total decrease of 5% in the intake of saturated fat from products such as minced beef and cream. 80% of Danish consumers did not change their shopping habits at all. The behavioural change was economically damaging as consumers switched to cheaper brands and crossed the border to Sweden and Germany to do their shopping. Danish tax revenue fell as a result.

(Source: adapted from https://iea.org.uk/in-the-media/press-release/evidence-shows-a-fat-tax-would-hit-poorest-the-hardest 25 May 2013 and https://www.cambridge.org/core/journals/public-health-nutrition/article/effects-of-the-danish-saturated-fat-tax-on-the-demand-for-meat-and-dairy-products/984CF03634C819D50E66C7B5DC5209DA/core-reader)

(a) With reference to Figure 1 and Extract A, explain what is meant by a 'highly concentrated' market for potato crisps (Extract A, lines 2–3).

**(5)**

(b) Apart from changes in indirect taxes and subsidies, examine **two** causes of income inequality within a developed economy such as the UK.

**(8)**

(c) In Extract A, lines 15–16, it was suggested that some firms may respond to the advertising ban by cutting the prices of their products.

Using game theory and the information provided in Figure 1 and Extract A, discuss the effects **on firms** of cutting prices in an oligopolistic market.

**(12)**

**EITHER**

(d) Evaluate the microeconomic and macroeconomic effects of increased government spending on education to promote healthy eating in the UK.

**(25)**

**OR**

(e) Evaluate the likely microeconomic and macroeconomic effects of imposing a tax on HFSS foods.

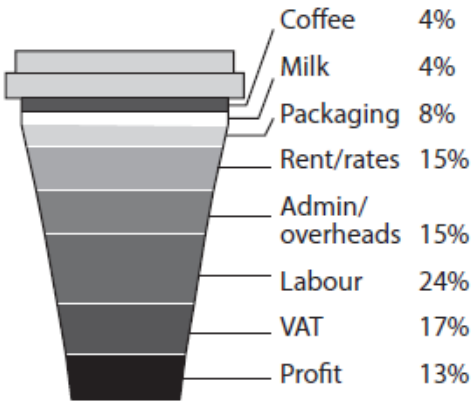
**(25)**

**(Total for question = 50 marks)**

Q11.

Figure 1 shows the distribution of the revenue received from the sale of a Starbucks cappuccino drink priced at £2.27 in 2015.

**Figure 1**




(Source: adapted from Allegra strategies research and analysis, reported in The Times, 27th January 2015)

(a) Which **one** of the following is a fixed cost to Starbucks?

**(1)**

☒ **A** Coffee

☒ **B** Milk

☒ **C** Packaging

☒ **D** Rent

(b) Explain the difference between fixed costs and variable costs.

**(2)**

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(c) With reference to Figure 1, calculate the profit (in pence) for a cappuccino drink. You are advised to show your working.

**(2)**

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**(Total for question = 5 marks)**

Q12.

(a) With reference to Figure 1, explain **one** possible cause of the forecast change in total energy use.

**(5)**

(b) With reference to Figure 4, examine the likely impact on the USA's circular flow of income of the trends in exports and imports of natural gas between 2000 and 2020.

**(8)**

(c) With reference to the information provided, discuss the likely impact of a change in the price of gas on the markets for solar energy and nuclear energy.

**(12)**

**EITHER**

(d) With reference to the information provided and your own knowledge, evaluate the possible microeconomic and macroeconomic effects on the UK economy of a decision by the government to encourage fracking.

**(25)**

**OR**

(e) With reference to the information provided and your own knowledge, evaluate the possible microeconomic and macroeconomic effects on the global economy of lower energy prices.

**(25)**

**(Total for question = 50 marks)**

Q13.

(a) Explain the difference between 'good' deflation (Extract B, line 16) and 'bad' deflation (Extract B, line 27).

**(5)**

(b) With reference to Figure 1 and Extract A, examine the likely reasons for the fall in oil prices since the middle of 2014.

**(8)**

(c) With reference to Extract A, discuss the factors necessary for the success of a cartel.

**(12)**

**EITHER**

(d) With reference to the information provided and your own knowledge, evaluate the microeconomic and macroeconomic effects of a sustained period of deflation.

**(25)**

**OR**

(e) With reference to the information provided and your own knowledge, evaluate the microeconomic and macroeconomic effects of a sustained fall in global oil prices.

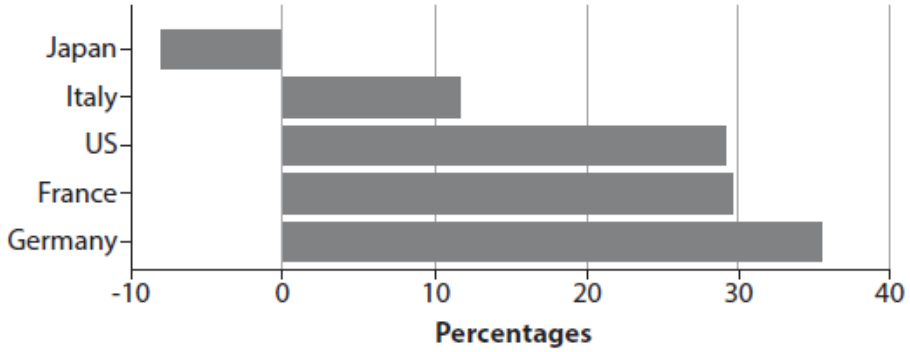
**(25)**

**(Total for question = 50 marks)**

Q14.

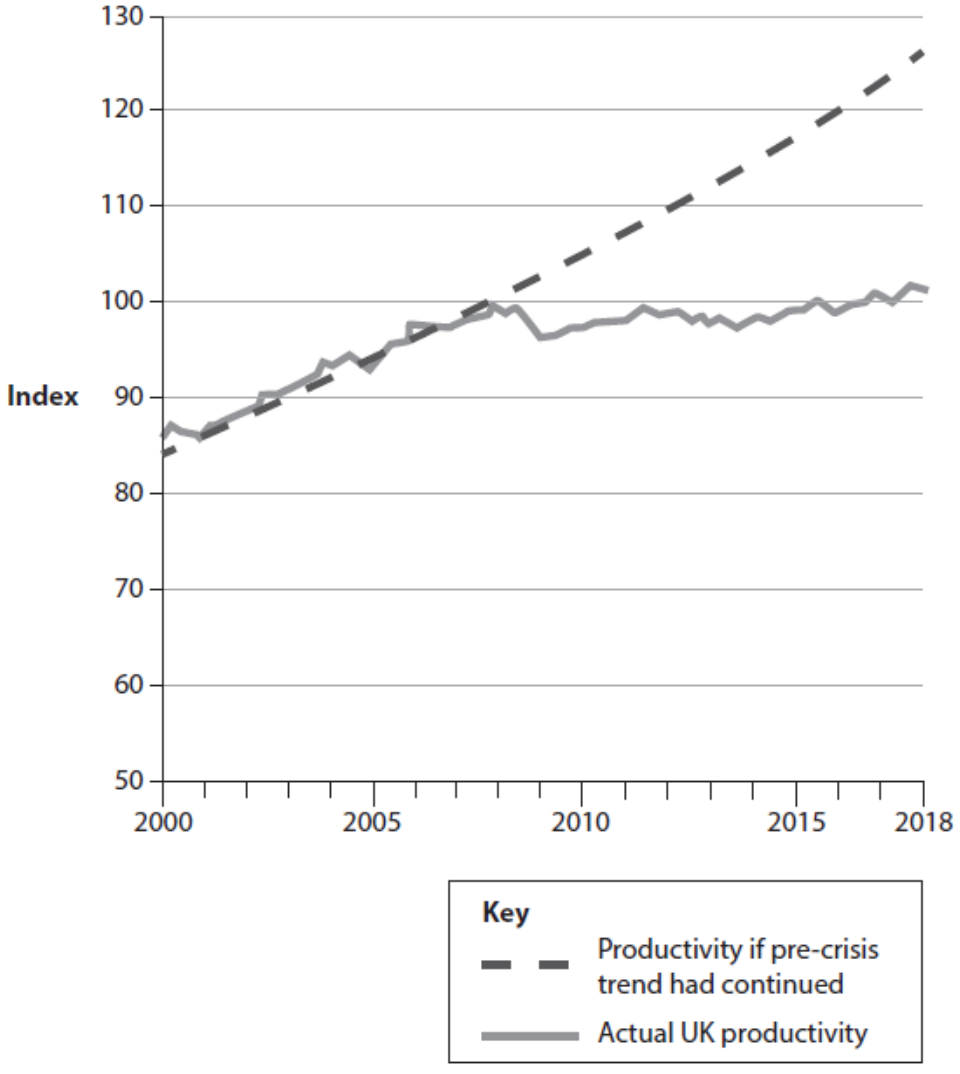
**The UK economy**

**Figure 3: GDP per hour worked, nominal values at PPPs, percentage above or below UK level, 2018**



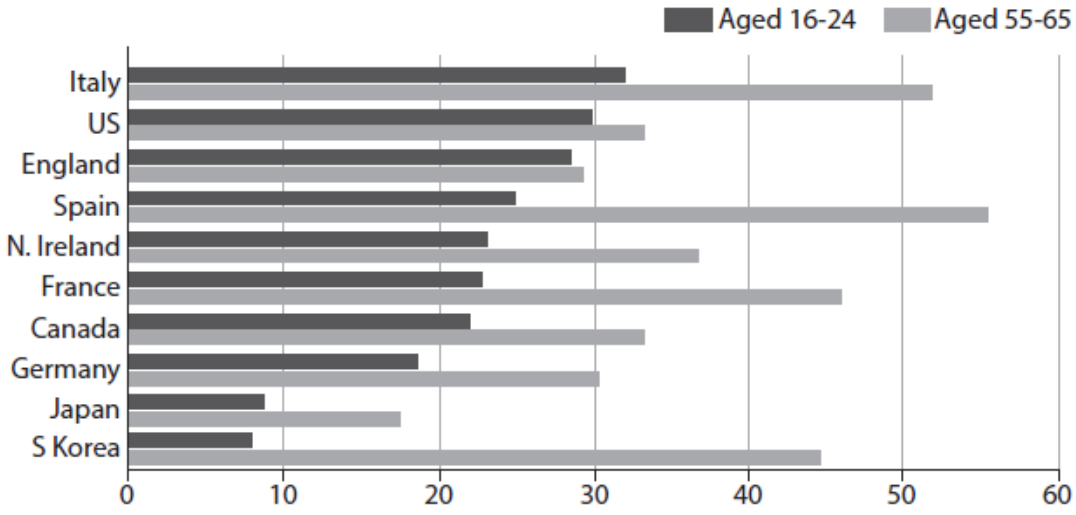

(Source adapted from: ONS.gov.uk)

**Figure 4: UK index of output per hour worked, base year 2016 = 100**




(Source adapted from: ONS.gov.uk)

**Figure 5: Proportion of adults with low literacy and/or numeracy skills, by age, selected countries**




(Source adapted from: OECD.org)

(Figures 3, 4 and 5 Source: FT.com 2016 data published https://www.ft.com/content/6ada0002-9a57-11e8-9702-5946bae86e6d 2018)

**Extract D**

**The end of the High Street?**

Homebase, the UK's second-largest do-it-yourself (DIY) retailer, made £20–40 million a year profit up to 2016. The Australian conglomerate Wesfarmers bought Homebase for £340 million in 2016, and began to rebrand 24 stores under its own name. It scaled back on curtain, cushion and other homeware sales in favour of power tools and building materials. In 2018 Wesfarmers sold the DIY chain for £1, in the face of "extremely challenging" market conditions and excess store space. The chain was bought by restructuring specialist Hilco, which had also rescued the music chain HMV in 2013, and the stores have gone back to using the Homebase name. Over 70% of Homebase stores are currently losing money and the new owner wants to exit loss-making stores and agree to rent reductions, as sales fell 10% in 2018. Homebase has gone back to popular products and brands dropped by its previous owner Wesfarmers.

The closures will add to the mounting job losses on Britain's high streets. About 25 000 jobs have gone in the first seven months of 2018, according to analysis by an economics thinktank. A further 8 300 jobs are under threat at suppliers, with the multiplier effect meaning that GDP is £1.5 billion less than projected.

Several Marks & Spencer clothing stores closed their doors for the last time as the high-street chain pushes ahead with a transformation plan. It plans to close 100 stores by 2022. Toys R Us, Poundworld and Maplin have shut down completely, while New Look, Mothercare and Carpetright have plans to close hundreds of stores as losses rise sharply. Increasing rents and higher business rates have occurred at the same time as falling consumer confidence. Meanwhile, House of Fraser employees and pensioners are nervously awaiting more details about their future. The £90 million rescue deal by Sports Direct, the sportswear chain controlled by Mike Ashley, will protect 16 000 jobs for the time being.

(Source adapted from: https://www.ft.com/content/00d0bb9e-a6ee-11e8-8ecf-a7ae1beff35b 24 August 2018 and https://www.theguardian.com/business/2018/aug/13/homebase-close-80-stores-high-street-job-losses-mount Patrick Collinson 13 Aug 2018)

(a) With specific reference to Figure 3, explain why productivity is measured by 'GDP per hour worked, nominal values at PPPs'.

**(5)**

(b) Apart from literacy and numeracy skills in young workers, examine **one** reason for the trend in productivity in the UK, over the period shown in Figure 4.

**(8)**

(c) Discuss factors that are causing many high street retailers in the UK to close some branches or shut down completely.

Use a cost and revenue diagram to support your answer.

**(12)**

**EITHER**

(d) Evaluate possible microeconomic and macroeconomic policies which could be used to improve UK competitiveness.

**(25)**

**OR**

(e) Evaluate the microeconomic and macroeconomic effects of a decline in the literacy and numeracy skills of a country's young workers.

**(25)**

**(Total for question = 50 marks)**

Q15.

In 2015 JCB, the construction equipment manufacturer, experienced a 6% fall in revenue. This resulted from a reduction in sales of construction equipment to emerging markets.

(a) Draw a cost and revenue diagram to show the likely impact of a reduction in sales of construction equipment on JCB's profits.

**(4)**

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(b) In India JCB has a strong brand image and a 50% share of the market for construction equipment. This means the construction equipment market in India is likely to have a low level of:

**(1)**

☒ **A** concentration

☒ **B** contestability

☒ **C** private ownership

☒ **D** specialisation

**(Total for question = 5 marks)**