

Surname <i>StemUp Model Solution</i>	Centre Number	Candidate Number
First name(s)		2



GCE A LEVEL

A520U10-1



MONDAY, 12 MAY 2025 – MORNING

ECONOMICS – A level component 1
Economic Principles

1 hour 30 minutes

For Examiner's use only		
Question	Maximum Mark	Mark Awarded
1–20	20	
21.	6	
22.	4	
23.	4	
24.	8	
25.	8	
26.	10	
Total	60	

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01

ADDITIONAL MATERIALS

A calculator.

INSTRUCTIONS TO CANDIDATES

Use black ink or black ball-point pen. Do not use gel pen or correction fluid.

Write your name, centre number and candidate number in the spaces at the top of this page.

Answer **all** questions.

Write your answers in the spaces provided in this booklet. If you run out of space, use the additional page(s) at the back of the booklet, taking care to number the question(s) correctly.

INFORMATION FOR CANDIDATES

The number of marks is given in brackets at the end of each question or part-question.

You are reminded of the necessity for good English and orderly presentation in your answers.



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Answer **all** questions.

SECTION A

For each question in Section A, write the letter (**A, B, C, D** or **E**) that corresponds to your answer in the box provided.

You are advised to spend approximately **30 minutes** on this section.

1. Which of the following is the best example of expansionary fiscal policy? [1]

- A** Central Bank purchases of existing government bonds from financial markets
- B** A cut in base interest rate
- C** An increase in corporation tax rate
- D** A cut in the personal income tax allowance
- E** An increase in public sector road building

E

2. A commodity was priced at \$200 per kilo in 2023 and this formed the base year of a price index for this commodity (index in base year = 100). By 2025 the commodity was priced at \$320 per kilo.
What is the price index for the commodity in 2025? [1]

- A** 60
- B** 120
- C** 137.5
- D** 160
- E** 220

D



3. If demand rises for a profit maximising firm operating under conditions of monopolistic competition, which of the following effects for the firm are most likely in the short run? [1]

	Total revenue	Total costs	Total profit
A	Rises	Rises	Rises
B	Rises	Rises	No change
C	No change	No change	No change
D	Rises	Falls	Falls
E	Falls	Falls	Falls

A

4. If a central bank engages in a policy of reversing quantitative easing, also known as quantitative tightening, this is most likely to: [1]

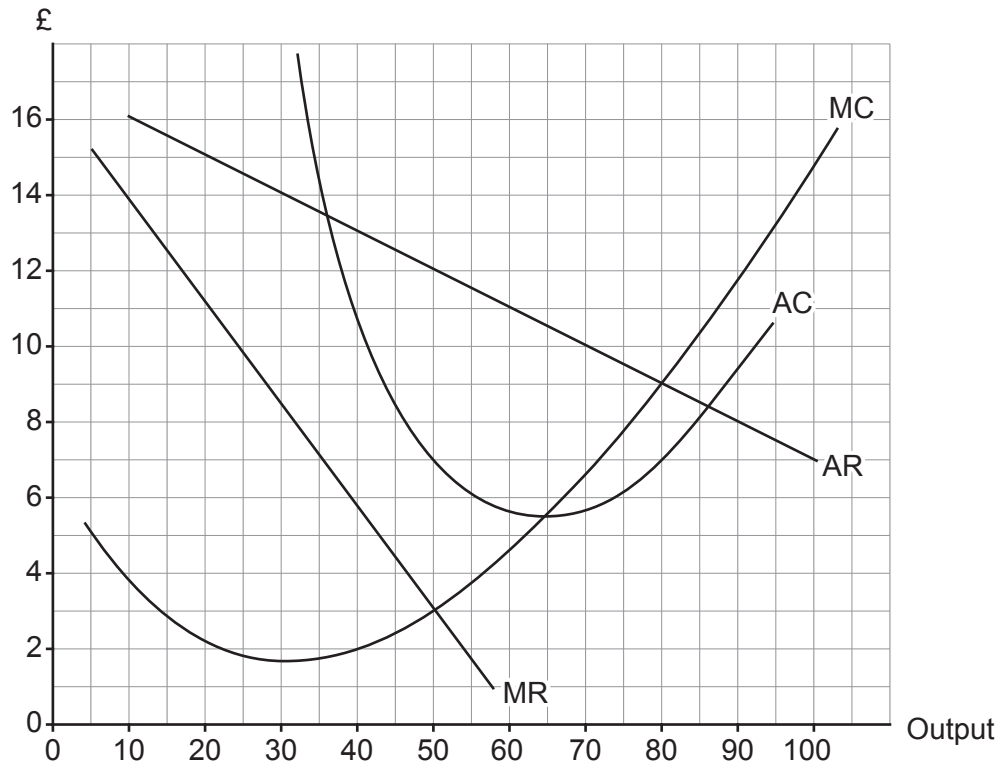
- A** Raise long-term interest rates
- B** Decrease bond yields
- C** Increase the money supply
- D** Lower short-term interest rates
- E** Decrease the national debt

A



Questions 5 and 6 refer to the diagram below.

The diagram below shows a firm's revenue and cost curves.



5. What is the level of abnormal profit at the firm's allocatively efficient output?

[1]

- A £0
- B £160
- C £250
- D £330
- E £720

B



6. What are the firm's total costs at the profit maximising output?

[1]

- A £150
- B £250
- C £275
- D £350
- E £600

D

7. The table below gives information on the selling price, weekly demand and cross price elasticity of demand for two products, X and Y.

	Product X	Product Y
Selling price	£20	£15
Demand per week	1000	1500
Cross price elasticity of demand with product X		-1.5

If the price of product X fell to £18, the change in the weekly demand for product Y would be:

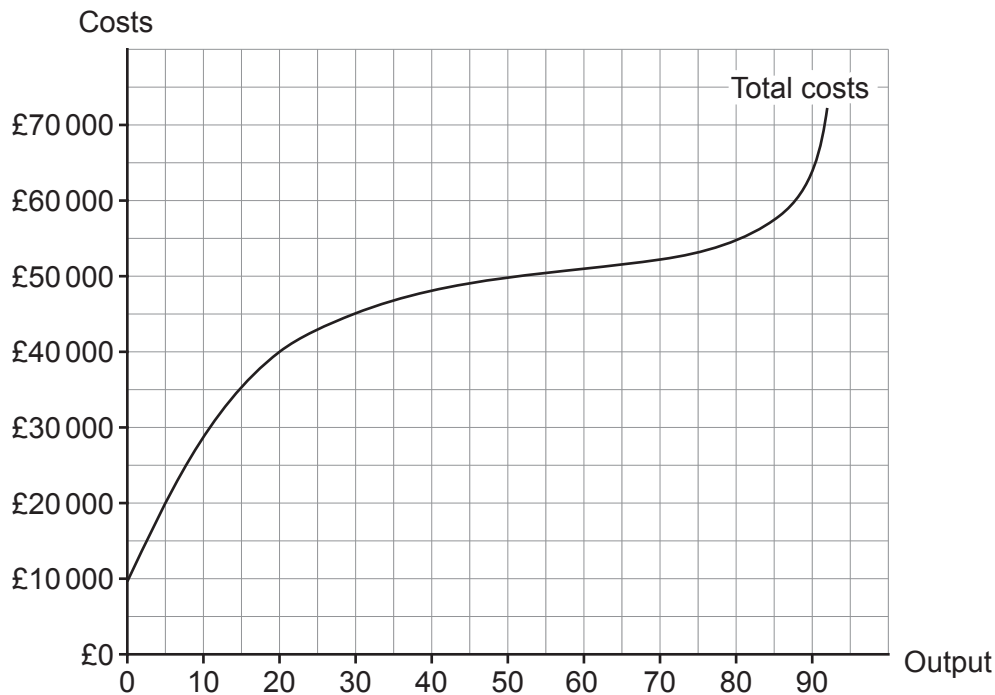
[1]

- A A decrease of 225 units
- B A decrease of 150 units
- C An increase of 45 units
- D An increase of 150 units
- E An increase of 225 units

E



8. The diagram below shows a firm's total costs at different output levels.



Which of the following is true?

[1]

- A The average fixed cost of producing 50 units is £10 000
- B The average variable cost of producing 50 units is £800
- C The average fixed cost of producing 20 units is £200
- D The average total cost of producing 20 units is £600
- E The average variable cost of producing 20 units is £800

B

9. Factors which will affect the elasticity of demand for labour include all the following **except**: [1]

- A Labour costs as a % of total costs
- B Income elasticity of demand for the final product
- C Ease and cost of factor substitution
- D The time period under consideration
- E Price elasticity of demand for the final product

B



10. The table below shows the market shares of seven firms in a certain industry.

Firm A	30%
Firm B	20%
Firm C	15%
Firm D	15%
Firm E	10%
Firm F	5%
Firm G	5%

If Firm B merged with Firm C, then the four firm concentration ratio in the industry would: [1]

- A Rise by 15 percentage points
- B Fall by 5 percentage points
- C Rise by 10 percentage points
- D Fall by 15 percentage points
- E Remain unchanged

C

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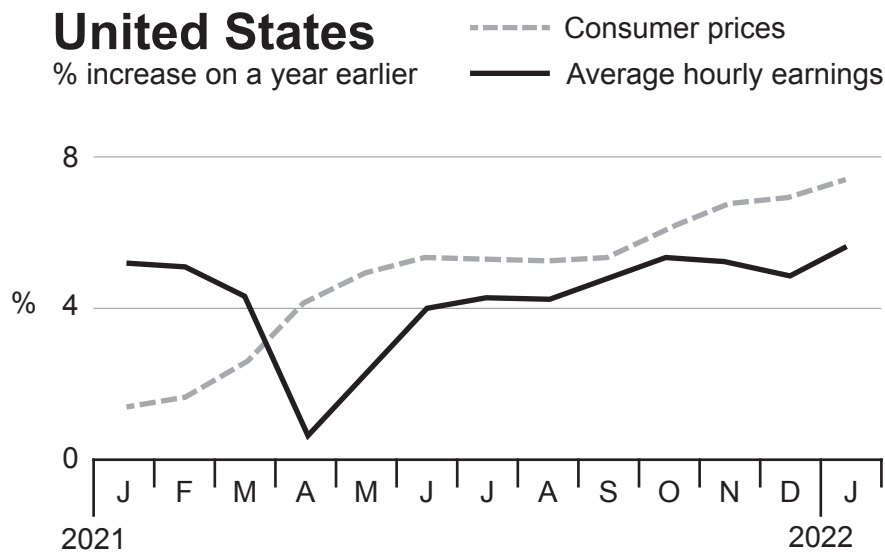
11. A firm would **definitely** make normal profit if: [1]

- A $MC = MR$
- B $MC = AR$
- C $MC = AC$
- D $AC = MR$
- E $AC = AR$

E



12. The chart below shows the rate of change of wages and prices in the United States in 2021 and early 2022.



It can be concluded that:

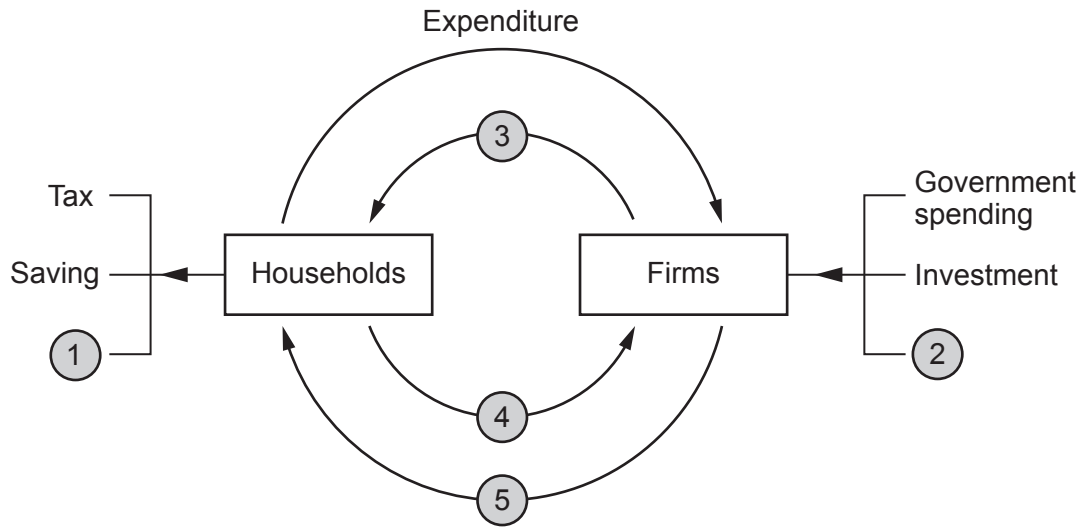
[1]

- A Nominal wages fell over the period
- B Real wages fell every month
- C Real wages fell in the second half of 2021
- D Nominal wages fell in the second half of 2021
- E Real wages fell in the first two months of 2021

C



13. The diagram below shows the circular flow of income in an economy.



1, 2, 3, 4 and 5 are flows in the circular flow of income. They are most likely to be:

[1]

	1	2	3	4	5
A	Exports	Imports	Goods and services	Factor incomes	Factors of production
B	Exports	Imports	Factors of production	Goods and services	Factor incomes
C	Imports	Exports	Goods and services	Factors of production	Factor incomes
D	Imports	Exports	Factors of production	Goods and services	Factor incomes
E	Imports	Exports	Goods and services	Factor incomes	Factors of production

C



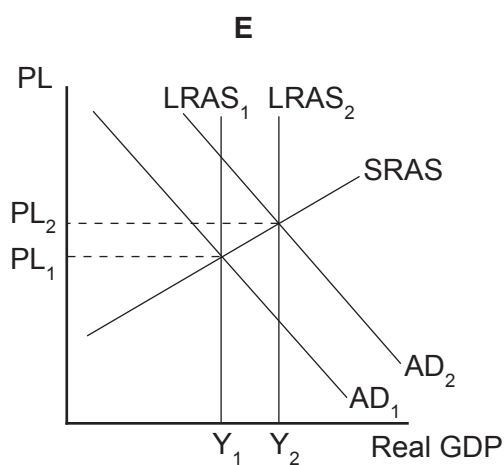
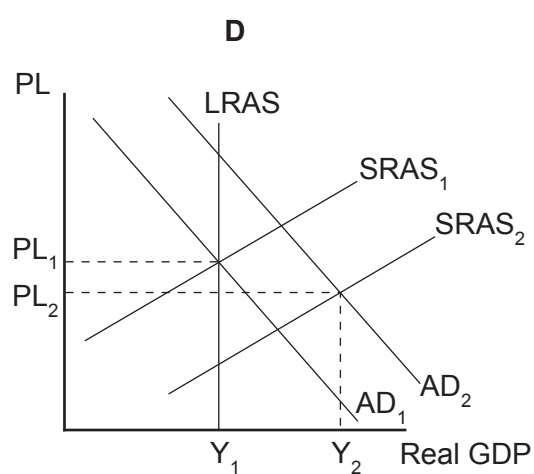
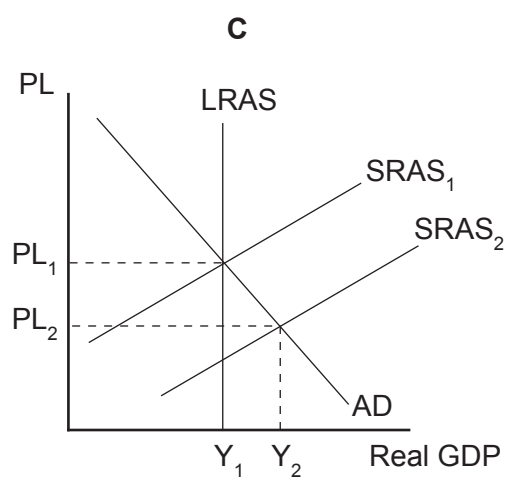
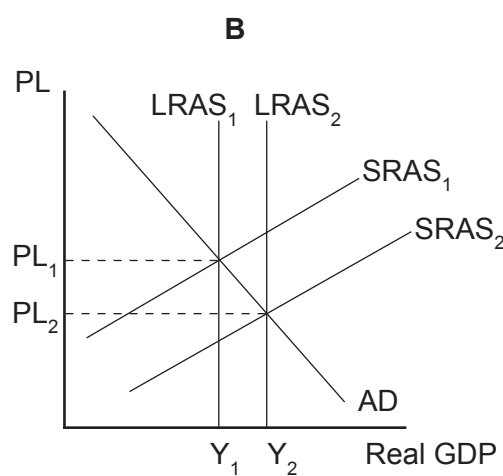
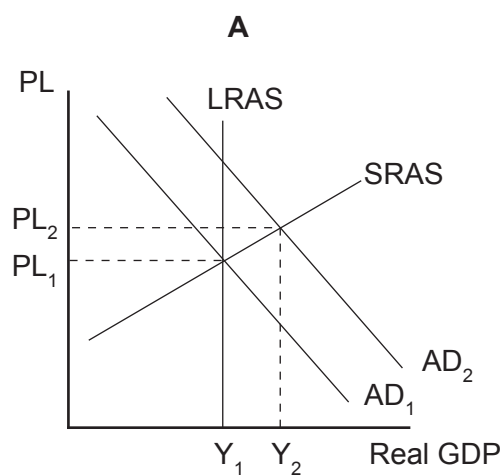
14. Which one of the following is currently included in the construction of the Human Development Index (HDI)? [1]

- A Adult literacy rates
- B Life expectancy at birth
- C GDP per capita (PPP\$)
- D The infant mortality rate
- E The primary education enrolment rate

B



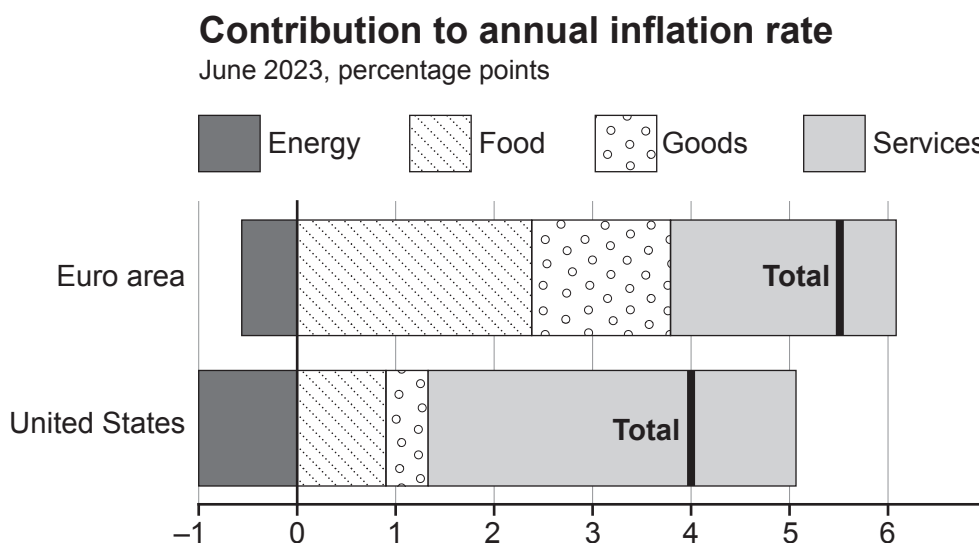
15. A government announces a significant cut in the rate of value added tax (VAT). Which of the following AD/AS diagrams shows the most likely initial effects of this cut? [1]



C



16. The chart below gives information on inflation in the United States and the euro area in June 2023.



It can be concluded that:

[1]

- A Food price inflation was higher in the United States than in the euro area
- B Energy prices helped to reduce inflation in both the United States and the euro area
- C Goods price inflation was higher in the United States than in the euro area
- D Food prices were lower in the United States than in the euro area
- E Service price inflation was a higher proportion of overall inflation in the euro area than it was in the United States

B

17. To increase the number of cars sold each week from 20 cars to 21 cars, a firm cuts the price of a car from £30 000 to £27 000.

The firm's weekly marginal revenue (MR) from this decision is:

[1]

- A £567 000
- B £27 000
- C £3000
- D -£33 000
- E -£63 000

D



18. The grid below shows the expected profits for two firms considering starting advertising campaigns:

		Firm Y	
		Advertise	Don't Advertise
Firm X	Advertise	£50 m, £70 m	£30 m, £30 m
	Don't Advertise	£60 m, £40 m	£40 m, £35 m

The Nash equilibrium in this case is

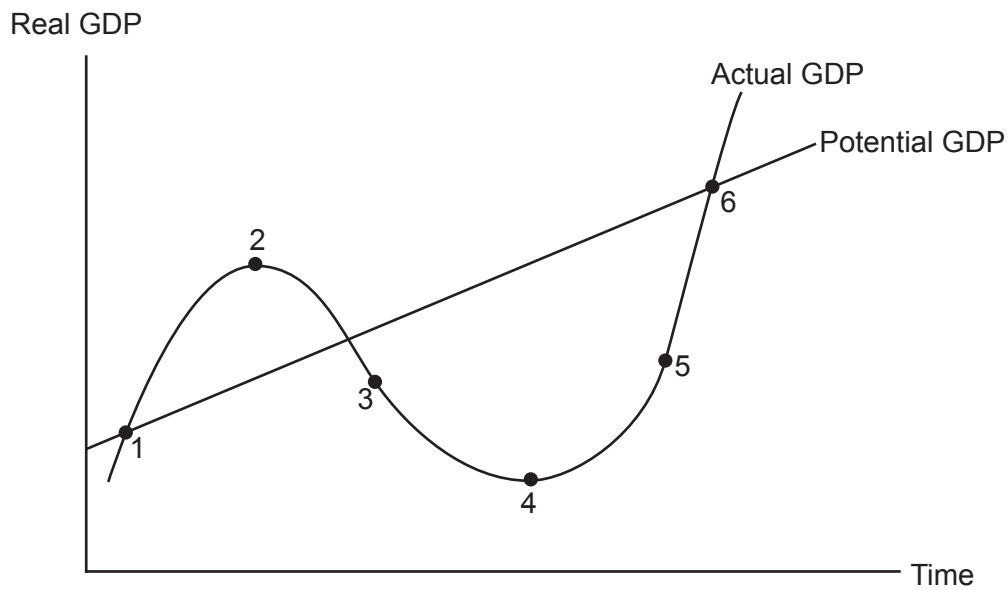
[1]

	Firm X	Firm Y
A	No Nash equilibrium in this case	
B	Advertise	Don't Advertise
C	Advertise	Advertise
D	Don't Advertise	Don't Advertise
E	Don't Advertise	Advertise

E



19. The diagram below shows an economy's actual and potential GDP.



Which movement shows an increase in an economy's negative output gap?

[1]

- A 1 to 2
- B 2 to 3
- C 3 to 4
- D 4 to 5
- E 5 to 6

C



20. The table below shows the output of fruit and vegetables in two countries that have used half of their factors of production in the production of each good.

	Fruit		Vegetables
Country 1	200	and	400
Country 2	600	and	800

If each country specialised in producing the good in which they had a comparative advantage, the **change** in **total output** of each good would be: [1]

	Fruit	Vegetables
A	–400	+400
B	+200	–400
C	+400	–400
D	+400	+400
E	+400	+600

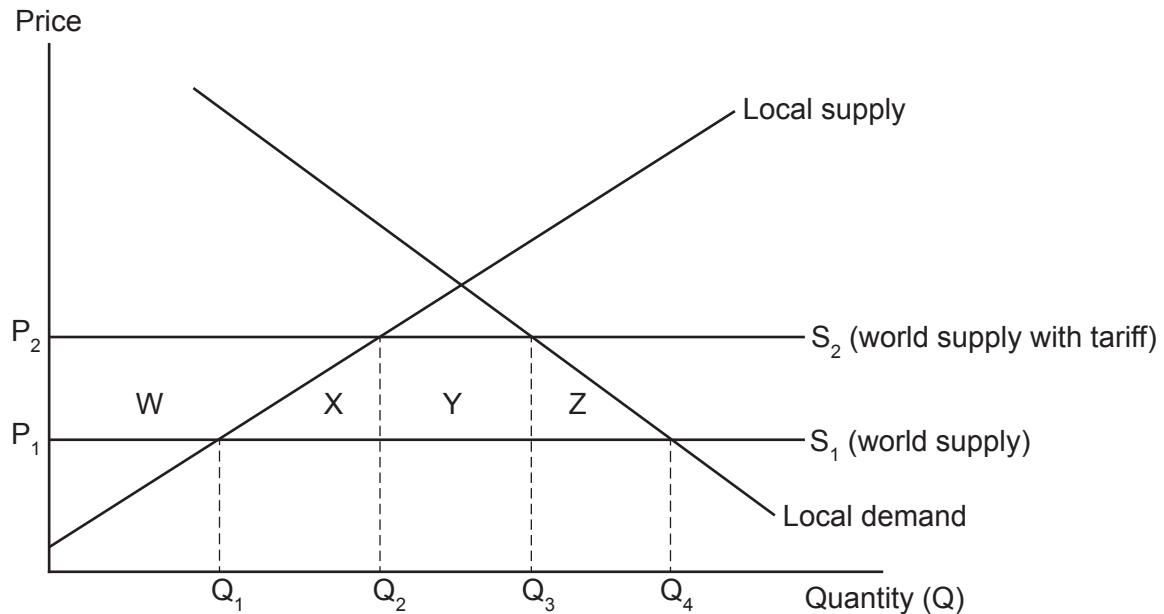
C

20



SECTION BAnswer **all** questions.

21. The diagram below shows a market in which a government has imposed a tariff on imported goods.



Briefly explain what is represented by the following areas in the diagram:

- (a) W

[2]

W is the gain in producer surplus for local producers. The tariff raises the price from P_1 to P_2 , so local firms expand output from Q_1 to Q_2 and receive a higher price on all units, increasing their producer surplus and profits.

- (b) X + Z

[2]

X+Z is the deadweight (welfare) loss of the tariff. It is consumer surplus lost due to the higher price that is not transferred to local producers or the government: X is the cost of inefficient local production (Q_1 to Q_2) replacing cheaper imports, Z is lost as consumption falls from Q_4 to Q_3 .



(c) Y

[2]

Y is the tariff revenue received by the government. It equals the tariff per unit ($P_2 - P_1$) multiplied by the quantity of imports after the tariff is imposed (Q_2 to Q_3).

6



22. The image below shows the price of hiring a beach hut at the seaside at different times of the year.



Using the information in the image, outline two necessary conditions for price discrimination to be used by a firm when selling a product or service. [4]

Price discrimination is charging different prices to different groups of consumers for the same service for reasons unrelated to costs.

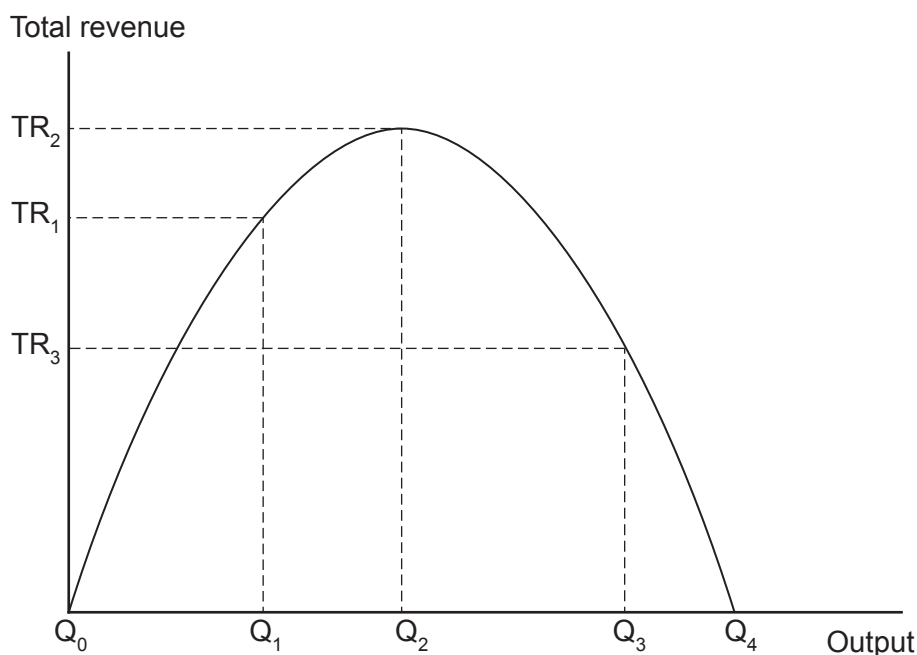
1. The market must be separable into sub-markets at low cost. The owner separates customers by time of year: £60 a day in Nov to Feb, £100 in March/April/Oct and £155 in May to September.

2. The sub-markets must have different price elasticities of demand. Summer demand is more price inelastic (holidays, good weather, parties), so £155 can be charged, while winter demand is price elastic, so the price is cut to £60, raising total revenue and profit.

Also there must be no seepage (arbitrage): someone hiring in February cannot resell that hire to someone wanting a hut in July, as each booking is for a specific date.



23. The diagram below shows the total revenue curve for a monopoly firm.



Explain why the total revenue curve for the firm is shaped as shown in the diagram.

[4]

TR is zero at Q_0 as nothing is sold, rises to a maximum of TR_2 at Q_2 , then falls back to zero at Q_4 . A monopoly faces a downward sloping demand (AR) curve, so to sell more output it must cut its price on all units.

Between Q_0 and Q_2 demand is price elastic ($PED > 1$): a price cut causes a more than proportionate rise in quantity demanded, so TR rises (e.g. from TR_1 at Q_1 to TR_2 at Q_2) and MR is positive. At Q_2 , $PED = 1$ and $MR = 0$, so TR is maximised.

Beyond Q_2 demand is price inelastic ($PED < 1$): further price cuts raise quantity less than proportionately, so TR falls (to TR_3 at Q_3) and MR is negative. At Q_4 price is zero, so $TR = 0$.



24. Jamaica's minister for health and wellness wants to introduce compulsory food labelling regulations in an attempt to reduce deaths from 'lifestyle diseases'. According to the minister, up to 70% of Jamaica's population dies from these diseases, which are often linked to an unhealthy diet.

The current system of food labelling in Jamaica, which is unregulated, is argued to be ineffective. Research suggests that 12% of labels on pre-packaged food and beverage products contain incorrect or missing information and 80 to 90% of all pre-packaged foods contain harmful levels of additives and ingredients. Even where labels are accurate, they are complex and difficult to understand, breaching the principle of the consumer's right to know, which is further undermined by food companies' huge marketing budgets.

Using the data, discuss whether compulsory food labels are likely to correct market failure in Jamaica in this case. [8]

The market failure is information failure (asymmetric information): food firms know far more about their products than consumers. 12% of labels have incorrect or missing information, 80 to 90% of pre-packaged foods contain harmful additives, and even accurate labels are 'complex and difficult to understand'. Consumers overestimate the private benefit of unhealthy food, so this demerit good is overconsumed. With up to 70% dying from lifestyle diseases there are also negative externalities (healthcare costs). Output exceeds the social optimum, so resources are misallocated and there is a welfare loss.

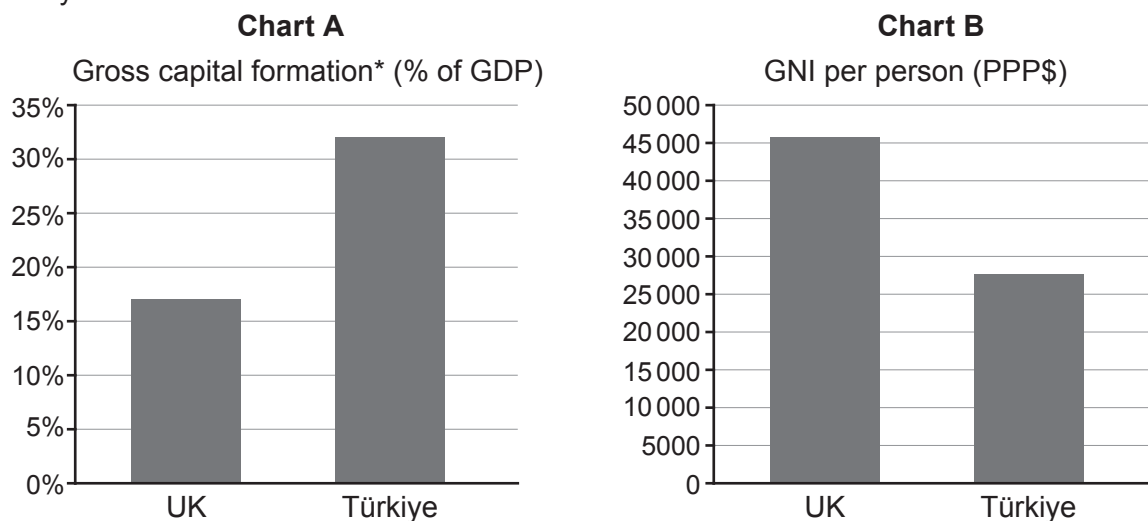
Compulsory, regulated labels could correct this by giving consumers the accurate information they have a 'right to know'. Demand (perceived MPB) for unhealthy food would shift left towards the true MPB/MSB, so consumption falls from Q_1 towards the social optimum Q^* , removing the welfare loss (see diagram on the additional page).

However, if labels are still complex, consumers will ignore them. Unhealthy food is habit forming and often the cheapest option, so demand may barely change. Firms' huge marketing budgets may outweigh the labels, and regulation must be enforced, as 12% of labels are already wrong.

Overall, labels are likely to reduce but not fully correct the market failure; it depends on labels being simple and enforced, and they work best alongside a sugar tax.



25. Chart A and Chart B below give information on investment and national incomes in the UK and Türkiye in 2023.



* Gross capital formation refers to private sector and government investment

Discuss whether the data suggests that Türkiye's GNI per person will eventually be greater than the UK's.

[8]

Chart A shows Türkiye's investment (gross capital formation) was about 32% of GDP in 2023, almost double the UK's 17%. However, Chart B shows UK GNI per person was about \$46 000 (PPP) compared with about \$27 000 in Türkiye, a gap of around \$19 000.

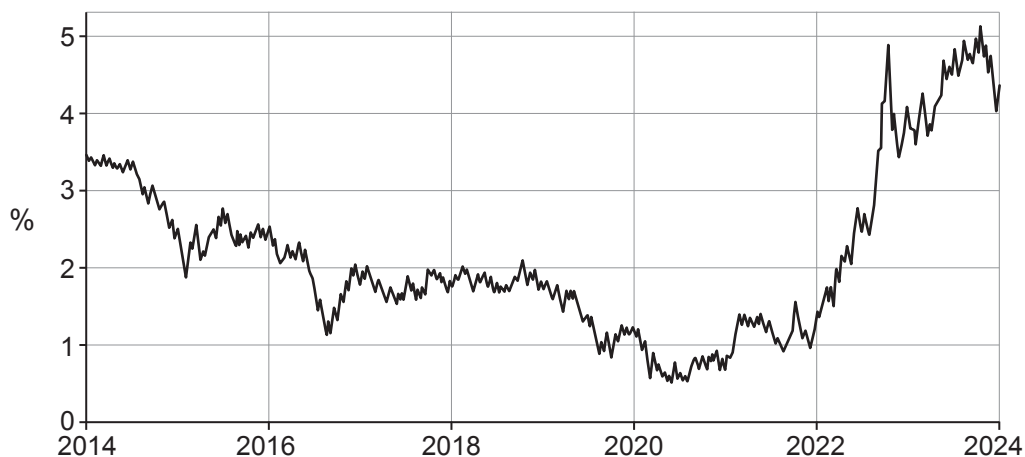
Higher investment increases the quantity and quality of the capital stock. This raises labour productivity, so productive potential rises and the LRAS curve (and PPF) shifts right, giving potential growth (see diagram on the additional page). Investment is also a component of AD, so it causes actual growth with multiplier effects. As output, revenues and wages rise, GNI per person rises. Türkiye has less capital per worker, so returns to new capital are higher and it could catch up.

However, the UK's GDP is much larger, so its investment may still be higher in absolute terms. The quality of investment matters: corruption or 'white elephant' projects add little to productivity. Investment above 30% of GDP is hard to sustain and Türkiye risks a middle-income trap. GNI per person also depends on population growth, activity rates, labour skills and macro stability (Türkiye has had very high inflation), as well as on how fast the UK itself grows.

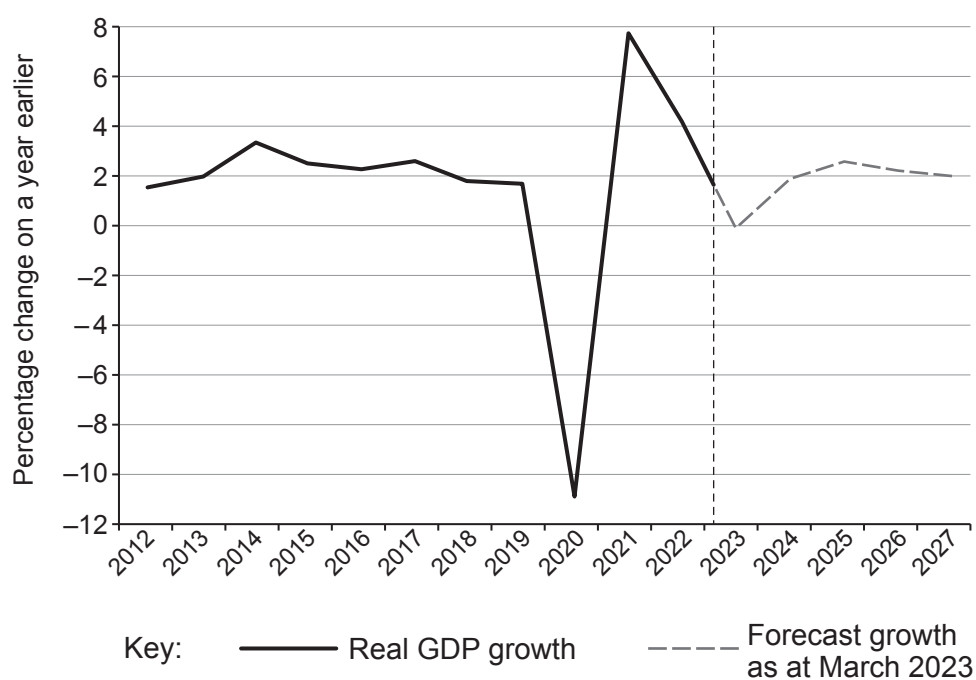


26. The charts below give information on the UK's growth, forecast growth, national debt and bond yields in March 2023. Bond yields show the cost of new borrowing to the government.

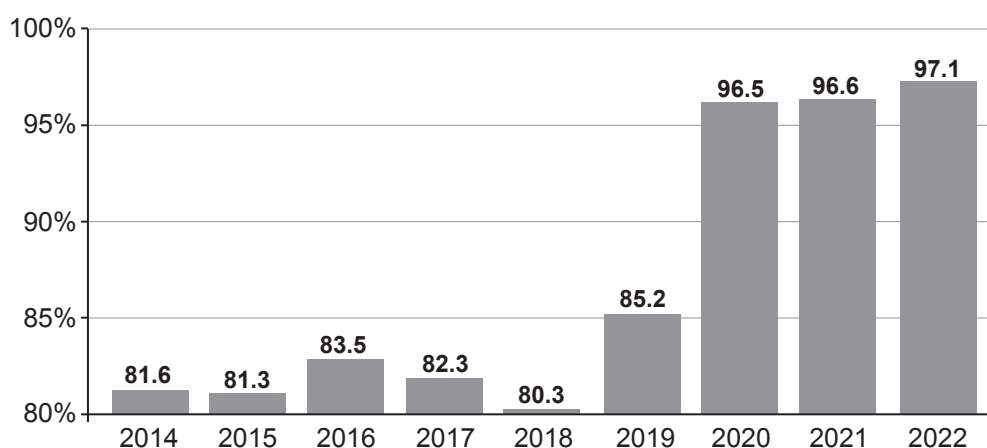
UK government bond yields (%)



UK real GDP growth forecast (March 2023)



UK national debt (% GDP)



Discuss the extent to which the UK government should have been concerned by the data shown in the charts.

[10]

There are reasons for concern. National debt rose from 81.6% of GDP in 2014 to 97.1% in 2022, jumping from 85.2% to 96.5% in 2020 due to Covid, and has been above 80% throughout. Bond yields, the cost of new borrowing, rose from below 1% in 2020 to around 4 to 5% by 2023, the highest in the period. Growth is forecast to slow from about 4% in 2022 to roughly 0% in 2023 and only about 2% a year up to 2027.

This combination is worrying. Higher yields raise debt interest payments as debt is rolled over; with debt near 100% of GDP, a 1 percentage point rise in yields eventually adds about 1% of GDP to interest costs. This has an opportunity cost: spending on health, education or infrastructure must be cut or taxes raised, which reduces AD and further weakens already slow growth. Heavy borrowing may also crowd out private sector investment by pushing up interest rates, lowering long-run growth. Slow growth means tax revenue grows slowly, so the debt to GDP ratio is unlikely to fall, and markets may demand even higher yields, as after the September 2022 mini-budget.

However, the government need not be too alarmed. Yields of about 4% are not



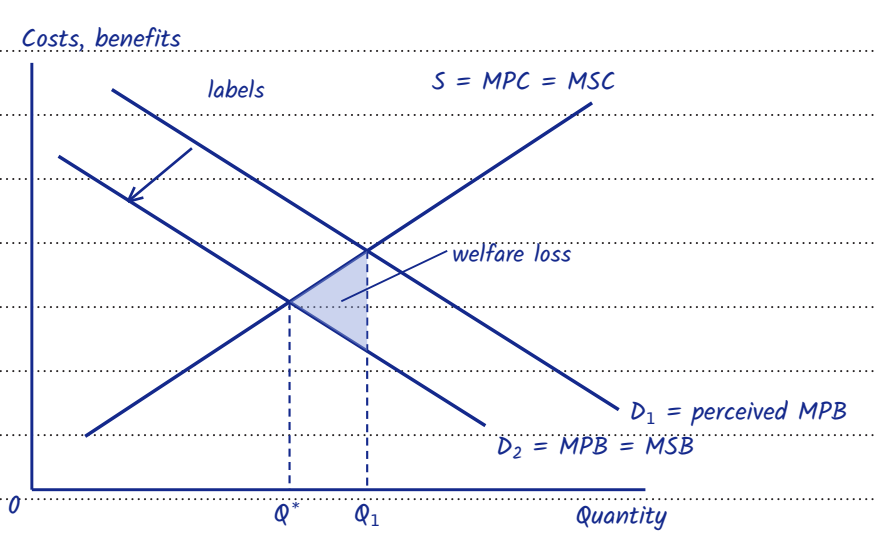
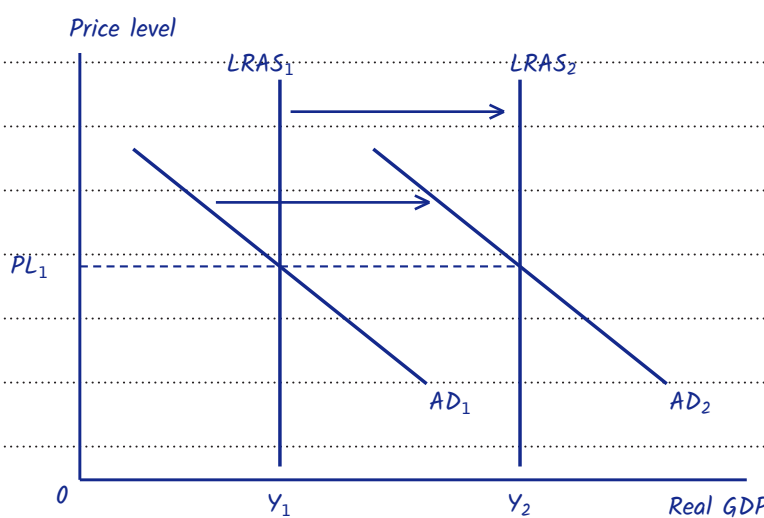
historically high: they were around 3.5% in 2014, and they seem to have peaked and started to fall in late 2023. The debt ratio has plateaued at 96.5 to 97.1% since 2020, and steady growth of around 2% a year from 2024 will widen the tax base, while inflation raises nominal GDP, both helping the ratio to fall. Much of the rise was a one-off caused by Covid, which affected other countries too; the US, Japan and France have debt above 100% of GDP. The UK also borrows in its own currency with long maturities, so higher yields feed through to interest costs only slowly.

Overall, the government should be moderately concerned. The level of debt alone is manageable, but rising borrowing costs combined with weak forecast growth could make it unsustainable if growth disappoints. The extent of concern depends on whether yields keep falling and growth meets forecasts, so a credible plan to stabilise debt is sensible rather than drastic austerity.

END OF PAPER

10



Question number	Additional page, if required. Write the question number(s) in the left-hand margin.	Examiner only
24	Diagram for Q24: information failure in the market for unhealthy food 	
25	Overall, the data suggests Türkiye's GNI per person will grow faster and the gap will narrow, but with a gap of about \$19 000 it is unlikely to overtake the UK for many decades, if ever.	
25	Diagram for Q25: investment shifts AD and LRAS right 	



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