

Please write clearly in block capitals.

Centre number

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I declare this is my own work.

A-level ECONOMICS

Paper 3 Economic Principles and Issues

Monday 8 June 2020

Morning

Time allowed: 2 hours

Materials

For this paper you must have:

- the insert
- a calculator.

Instructions

- Answer **all** questions.
- Use black ink or black ball-point pen. Pencil should only be used for drawing.
- Fill in the boxes at the top of this page.
- You will need to refer to the insert provided to answer **Section B**.
- You must answer the questions in the spaces provided. Do not write outside the box around each page or on blank pages.
- If you need extra space for your answer(s), use the lined pages at the end of this book. Write the question number against your answer(s).
- Do all rough work in this answer book. Cross through any work that you do not want to be marked.

Information

- The maximum mark for this paper is 80.
- The marks for questions are shown in brackets.
- No deductions will be made for wrong answers.

For Examiner's Use	
Section	Mark
A	
B	
TOTAL	



J U N 2 0 7 1 3 6 3 0 1

Section A

Answer **all** questions in this section.Only **one** answer per question is allowed.

For each question completely fill in the circle alongside the appropriate answer.

CORRECT METHOD



WRONG METHODS



If you want to change your answer you must cross out your original answer as shown.



If you wish to return to an answer previously crossed out, ring the answer you now wish to select as shown.

**0 1** Economics is a social science because

- A** all economic hypotheses are based on value judgements.
- B** economic policies can only be based on positive analysis.
- C** it involves the study of human behaviour and economic decision making
- D** quantitative data cannot be used to test economic theories.

☐☐☒☐**[1 mark]****0 2** All other things being equal, the demand for labour is more likely to be wage elastic if

- A** it is difficult to substitute capital for labour.
- B** the cost of labour is a low percentage of total costs.
- C** the final product has a high price elasticity of demand.
- D** the supply curve for labour is wage elastic.

☐☐☒☐**[1 mark]**

0 3

Table 1 contains data for the rates of growth of nominal and real GDP and the rate of inflation for an economy in a given year. Which one of the following combinations, **A**, **B**, **C** or **D**, shows the correct relationship between the three variables?

Table 1

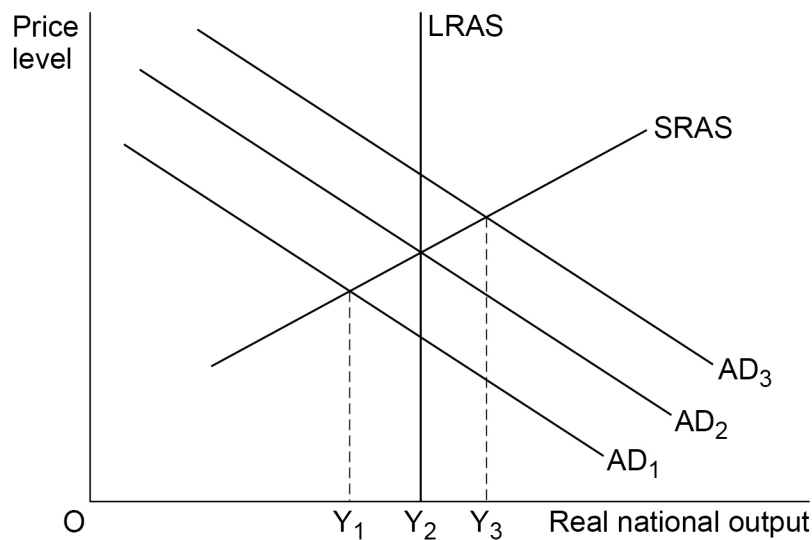
	Nominal GDP growth	Real GDP growth	Inflation	
A	-2%	0%	+2%	☐
B	+4%	+3%	-1%	☐
C	+5%	+5%	+1%	☐
D	-5%	-2%	-3%	☒

[1 mark]

0 4

Figure 1 shows three aggregate demand (AD) curves, a short-run aggregate supply (SRAS) curve and a long-run aggregate supply (LRAS) curve.

Figure 1



In **Figure 1**, when

- A** aggregate demand shifts from AD_1 to AD_2 , cyclical unemployment is likely to be eliminated. ☒
- B** aggregate demand shifts from AD_1 to AD_3 , the rate of economic growth is equal to $(Y_3 - Y_1)$. ☐
- C** the economy is producing at Y_1 , there is a positive output gap. ☐
- D** the economy is producing at Y_2 , there is no unemployment. ☐

[1 mark]

Turn over ►



0 5

In an economy, over the last decade, each of the top five decile groups has experienced a fall in their share of total income. In contrast, the bottom five decile groups have experienced a substantial increase in their share of total income.

It can be concluded that, over this period, the distribution of income is most likely to have become

A more equal.

☒

B more equal but less equitable.

☐

C more equitable.

☐

D more equitable but less equal.

☐

[1 mark]

0 6

In an economy, the marginal propensity to consume is 0.6. All other things being equal, which one of the following statements is correct?

A A £5 billion reduction in the economy's national income will result in a £3 billion fall in consumption

☒

B If injections into the circular flow of income equal £20 billion, national income will equal £32 billion

☐

C If injections into the circular flow of income rise by £10 billion, national income will rise by £6 billion

☐

D When the economy's national income equals £100 billion, consumption will equal £60 billion

☐

[1 mark]

0 7

Which one of the following combinations, **A**, **B**, **C** or **D**, shows the essential characteristics of a customs union?

	Internal trade barriers	Common external tariffs	Common currency	
A	Yes	No	Yes	☐
B	No	Yes	No	☒
C	Yes	Yes	No	☐
D	No	No	Yes	☐

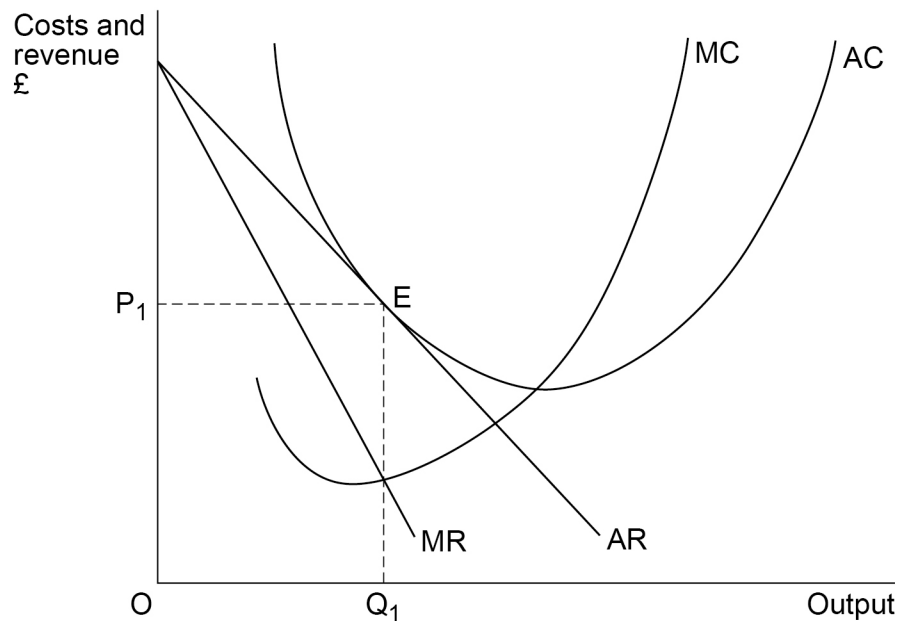
[1 mark]



0 8

Figure 2 shows the equilibrium position, point E, of a profit-maximising firm in a monopolistically competitive industry.

Figure 2



All other things being equal, which one of the following applies to the firm's equilibrium at point E? The firm is

- A in short-run equilibrium, but not in long-run equilibrium.
- B making normal profit because $AC = AR$.
- C making supernormal profit because $MC = MR$.
- D productively efficient but not allocatively efficient.

☐
☒
☐
☐

[1 mark]

0 9

A long-dated £100 government bond with a coupon rate of 5% has a current market value of £125. This implies that the

- A current yield on the bond is 4%.
- B current yield on the bond is 5%.
- C market rate of interest is 2.5%.
- D market rate of interest is 5%.

☒
☐
☐
☐

[1 mark]

Turn over ►



1 0

All other things being equal, in which one of the following circumstances is the Bank of England most likely to raise Bank Rate to maintain financial stability?

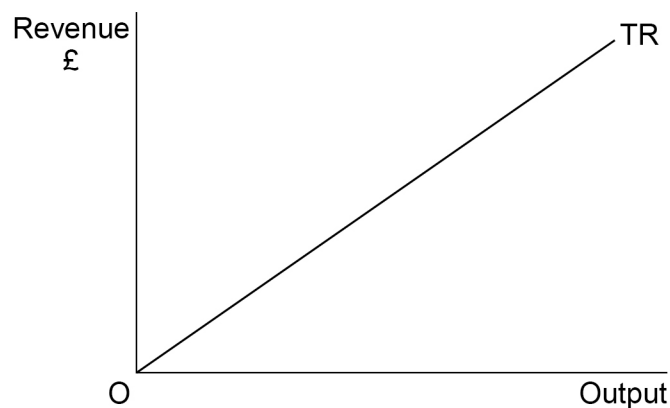
- A** A fall in bank liquidity and capital ratios following several years of rapid growth in bank lending and a boom in house prices ☒
- B** An increase in the government's target for the rate of inflation following a significant increase in the rate of productivity growth ☐
- C** An increase in the savings ratio as the economy recovers from a recession ☐
- D** A rise in share prices on global stock markets due to the growth in world trade ☐

[1 mark]

1 1

Figure 3 shows a firm's total revenue (TR) curve.

Figure 3



Which one of the following combinations, **A**, **B**, **C** or **D**, describes how the firm's average revenue and marginal revenue will change as the firm expands its output?

	Average revenue	Marginal revenue	
A	Increases	Increases	☐
B	Constant	Constant	☒
C	Decreases	Decreases	☐
D	Increases	Constant	☐

[1 mark]



1 2

According to the hypothesis of diminishing marginal utility, when marginal utility is zero

- A** average utility is negative.
- B** the good is a demerit good.
- C** total utility from consuming the good is maximised.
- D** total utility will increase by consuming more of the good.

☐☐☒☐**[1 mark]****1 3**

Table 2 shows the inflation rate and the rate of growth of the money supply for an economy between 2016 and 2019.

Table 2

Year	Inflation	Rate of growth of money supply
2016	3.1%	3.5%
2017	3.5%	3.3%
2018	2.9%	3.2%
2019	2.5%	2.0%

From the data in **Table 2** it may be concluded that, all other things being equal, there was

- A** a fall in the value of money throughout the entire period.
- B** a policy of quantitative easing in operation throughout the entire period.
- C** an inverse relationship between inflation and the rate of growth of the money supply.
- D** continuous disinflation throughout the entire period.

☒☐☐☐**[1 mark]****Turn over ►**

1 4

Increased output results from specialisation and the division of labour because they enable

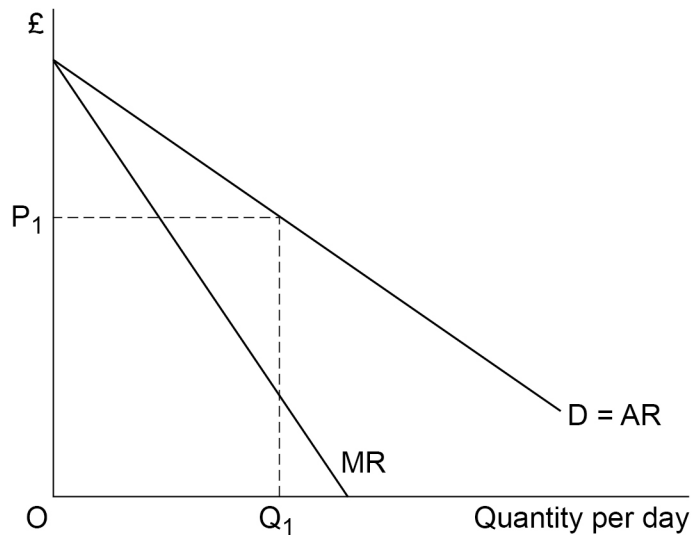
- A** countries to produce outside their production possibility boundary. ☐
- B** more efficient use of the available resources. ☒
- C** people to exchange goods and services with each other. ☐
- D** the use of money as a medium of exchange and store of value. ☐

[1 mark]

1 5

Figure 4 shows a firm's demand (D) curve and its marginal revenue (MR) curve for good X. The firm initially sells OQ_1 units of X per day at a price of OP_1 .

Figure 4



If the firm increases its price by 10%

- A** price elasticity of demand will decrease. ☐
- B** price elasticity of demand will not change. ☐
- C** total revenue will decrease. ☒
- D** total revenue will increase. ☐

[1 mark]



1 6

Which one of the following distinguishes a private good from a pure public good?

A A private good can only be provided by private firms and not the government☐**B** Consumption of a private good creates negative externalities for other consumers☐**C** Consumers of a private good have full knowledge of any externalities in its production☐**D** One person's consumption of a private good reduces the amount available for other consumers☒**[1 mark]****1 7****Table 3** shows the demand for and supply of oranges at a range of prices between 10 pence and 30 pence.**Table 3**

Price (pence)	Quantity supplied (000s)	Quantity demanded (000s)
10	100	125
15	120	120
20	122	108
25	125	100
30	128	88

As a result of an increase in consumers' incomes, the demand for oranges increases by 25% at each of the prices shown in **Table 3**.

After the rise in incomes:

A at a price of 10 pence, excess demand increases by 50%.☐**B** at a price of 30 pence, excess supply falls by 75%.☐**C** the equilibrium market price increases by two-thirds.☒**D** the price elasticity of demand increases by 25% at each price.☐**[1 mark]****Turn over ►**

1 8

Which one of the following government policies is most likely to reduce market failure and to improve the allocation of resources?

A A higher rate of tax on all firms earning profit

☐

B A minimum price for demerit goods above their free market price

☒

C Free market pricing for the provision of public goods

☐

D Subsidies paid to all loss-making firms to maintain full employment

☐

[1 mark]

1 9

The long-run Phillips curve shows that

A the expected rate of inflation is zero.

☐

B there is an inverse relationship between unemployment and inflation in the long run.

☐

C there is no trade-off between reducing inflation and lower unemployment in the long run.

☒

D unemployment can only be reduced in the long run by an increase in aggregate demand.

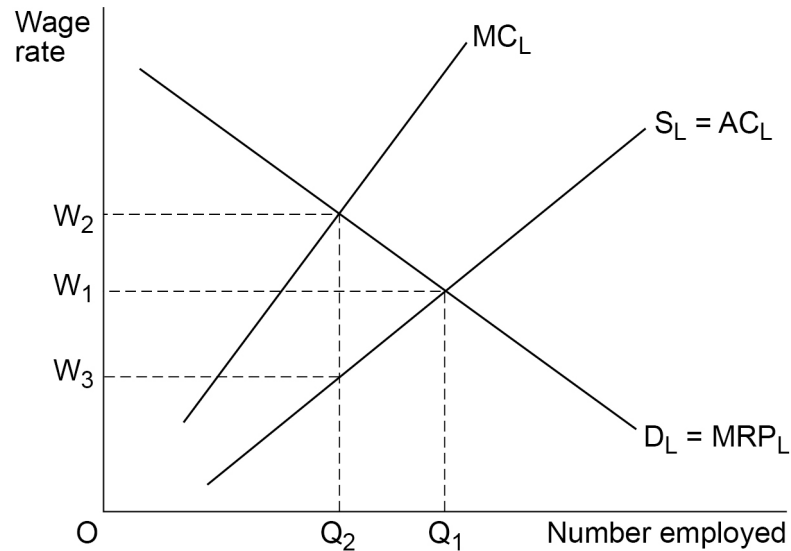
☐

[1 mark]



2 0

Figure 5 shows the market demand for labour ($D_L = MRP_L$), the market supply of labour ($S_L = AC_L$), and the marginal cost of labour (MC_L), in a particular industry. The employer in this industry is a monopsonist.

Figure 5

From **Figure 5**, it can be concluded that, in the absence of a trade union or a minimum wage, the firm will employ

- A** OQ_1 workers at a wage of OW_1 .
- B** OQ_2 workers at a wage of OW_1 .
- C** OQ_2 workers at a wage of OW_2 .
- D** OQ_2 workers at a wage of OW_3 .

☐☐☐☒**[1 mark]****2 1**

All other things being equal, which one of the following is most likely to increase the national debt?

- A** Foreign companies increasing their direct investment into the economy
- B** The central bank using its reserves of foreign currency to fund a trade deficit
- C** The government reducing its budget surplus by increasing its expenditure on infrastructure
- D** The government running a budget deficit, financed by selling bonds to foreign investors

☐☐☐☒**[1 mark]****Turn over ►**

2 2

Table 4 shows the weights used in the Consumer Prices Index (CPI) for a selection of items in 2008 and 2018.

Table 4

Category	2008 weight	2018 weight
Food and non-alcoholic beverages	109	101
Alcoholic beverages and tobacco	42	42
Clothing and footwear	63	70
Transport	152	156
All goods	547	519
All services	453	481

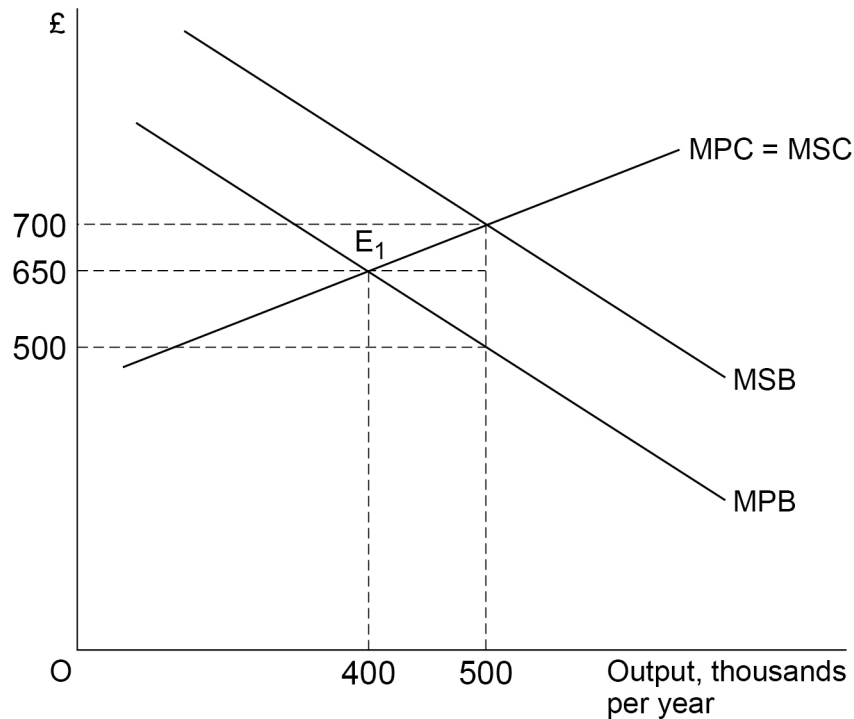
The data in **Table 4** indicate that between 2008 and 2018 the

- A** average price of goods fell, whereas the average price of services increased.
- B** percentage increase in the price of 'Clothing and footwear' was greater than the percentage increase in the price of 'Transport'.
- C** proportion of total expenditure, by a typical household, on 'Alcoholic beverages and tobacco' did not change.
- D** total expenditure of a typical household on 'Food and non-alcoholic beverages' fell.

☐☐☒☐**[1 mark]**

2 3

Figure 6 shows the marginal private and social benefit (MPB and MSB) curves and the marginal private and social cost (MPC and MSC) curves in the market for domestically produced solar panels. The initial market equilibrium is at E_1 .

Figure 6

To correct the market failure, the government introduces a subsidy to domestic manufacturers of solar panels of £200 per unit produced. Which one of the following represents the total amount of subsidy payments made by the government in the first year of the scheme?

- A** £20 million.
- B** £25 million.
- C** £75 million.
- D** £100 million.

☐
☐
☐
☒
[1 mark]**Turn over ►**

2 4

Moral hazard results when individuals and organisations make investment decisions

A based on asymmetric information.

☐

B because they expect to make a large profit.

☐

C based on the returns made on previous investments.

☐

D knowing that others will bear the loss if things go wrong.

☒

[1 mark]

2 5

An economy is estimated to be experiencing a 2% rate of frictional unemployment plus a 3% rate of structural and real wage unemployment. If it is also experiencing cyclical unemployment of 4%, its natural rate of unemployment is most likely to be

A 3%

☐

B 5%

☒

C 6%

☐

D 9%

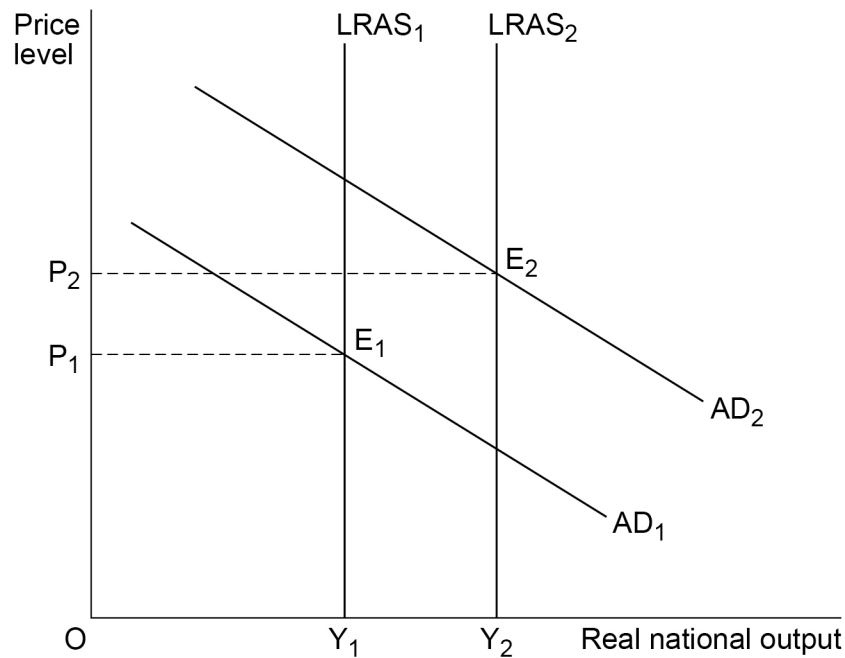
☐

[1 mark]



2 6

Figure 7 shows two aggregate demand (AD_1 and AD_2) curves and two long-run aggregate supply ($LRAS_1$ and $LRAS_2$) curves for an economy.

Figure 7

All other things being equal, which one of the following combinations, **A**, **B**, **C** or **D**, is most likely to explain the movement of the economy from E_1 to E_2 ?

An increase in the

- A** budget surplus and size of the multiplier.
- B** exchange rate and supply of money.
- C** rate of inflation and positive output gap.
- D** volume of exports and potential output.

☐
☐
☐
☒

[1 mark]

2 7

Which one of the following is correct for a proportional tax on income?

- A** The amount of tax paid increases as income increases
- B** The marginal rate of tax is lower than the average rate
- C** The average rate of tax falls as income increases
- D** The average rate of tax is lower than the marginal rate

☒
☐
☐
☐

[1 mark]

Turn over ►



2 8

Table 5 contains data for a firm's marginal cost of producing different outputs of shirts per day. The firm operates in a perfectly competitive market.

Table 5

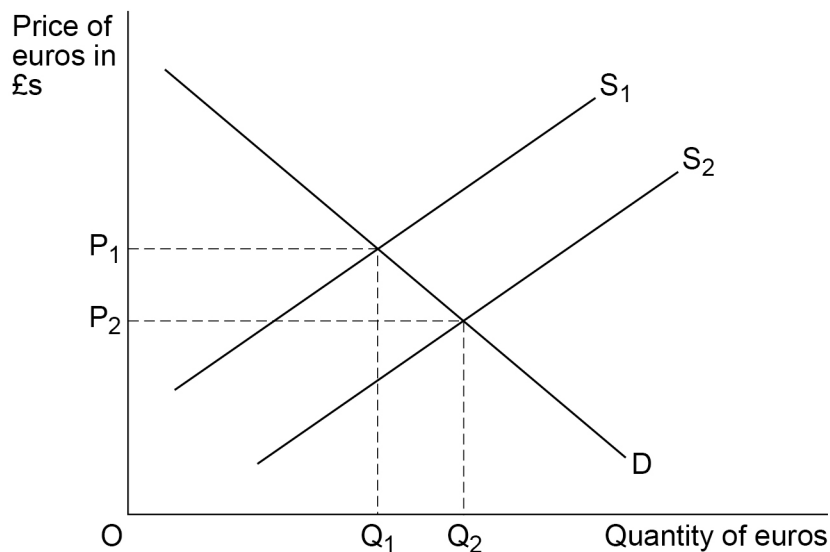
Output of shirts per day	Marginal cost (£s)
800	8
900	9
1000	10
1100	11

If the market price is £10 per shirt, at which one of the following outputs per day, **A**, **B**, **C** or **D**, will the firm maximise its profit?

A 800
☐
B 900
☐
C 1000
☒
D 1100
☐
[1 mark]

2 9

Figure 8 shows two supply (S_1 and S_2) curves and the demand (D) curve for euros on the foreign exchange market and the price of euros in terms of pounds sterling.

Figure 8

Which one of the following is the most likely explanation for the change in the exchange rate shown in **Figure 8**?

An increase in eurozone

- A** companies buying factories in the UK.
- B** exports of manufactured goods to the UK.
- C** interest rates relative to those in the UK.
- D** productivity growth relative to that in the UK.

☒
☐
☐
☐

[1 mark]

3 0

The behaviour of a consumer buying a 75-inch large screen TV is biased due to bounded rationality and the anchoring effect. This implies that the choice of which TV to buy is based on the price of

- A** all available 75-inch TVs, given sufficient time to obtain the information.
- B** the cheapest available 75-inch TV, in order to maximise utility.
- C** the first 75-inch TV seen and imperfect information about available alternatives.
- D** the most expensive 75-inch TV, believing that this indicates the best quality available.

☐
☐
☒
☐

[1 mark]

30

Turn over ►



Section B

Answer **all** questions in this section.

Refer to the insert for Extracts A, B, C and D.

Total for this Investigation: 50 marks

Changing living standards and inequality in the UK

INVESTIGATION

Scenario

You are an economist working for an organisation which investigates ways to improve the standard of living of UK citizens.

You have been asked to review changes in living standards and inequality since the 2007–2008 financial crisis.

As part of this investigation, you are to provide answers to three questions.

Referring to the insert, study **Extracts A, B and C** and then use these and your knowledge of economics to help you answer Questions 31 and 32. There is also a news report, **Extract D**, which is to be used with the other extracts to help you answer Question 33.

3 1

To what extent, if at all, do the data suggest that living standards in the UK improved between 2007 and 2017? You must use the data in **Extract B** to support your assessment.

[10 marks]

Living standards refer to the economic and social wellbeing of the population. They depend on the quantity and quality of goods and services people can consume, but also on health, leisure time, security (for example housing) and the environment. The usual measure is real GDP per head, but a fuller picture needs a range of indicators, so I will consider several.

Material living standards improved, but only modestly. Real GDP per capita rose from £29,324 in 2007 to £30,367 in 2017, an increase of only 3.6% over ten years, whereas in the 50 years before the crisis it grew by an average of 2.4% a year (Extract A), which would have meant a rise of over 25%. Within the period it fell by 6.0% to £27,558 in 2009 and did not pass the 2007 level until 2015. The index of real GDP rose by 11.5% (91.3 to



101.8), but this overstates the gain because it takes no account of the growth in population. Real household disposable income per capita, perhaps a better measure of what households can actually spend, rose by just 2.3% from £19,685 to £20,138, and it fell between 2015 and 2017. Extract A also says real average weekly earnings were still £15 below the pre-crisis peak. The labour market data are more positive. Unemployment fell from 5.3% in 2007 to 4.4% in 2017, after peaking at 8.1% in 2011, so fewer people suffered the loss of income and wellbeing that unemployment brings. However, average hours worked by full-time workers rose slightly from 37.2 to 37.4 a week, so some of the extra output came from less leisure time, which reduces welfare, although the change is very small.

Inequality fell. The Gini coefficient fell from 0.347 in 2006 to 0.322 in 2016 to 17, so income became more equally distributed, and the bottom 40% of earners saw real earnings rise after the National Living Wage was introduced. Since a pound is worth more to a poor household than a rich one, the modest rise in average incomes probably improved overall welfare by more than the averages suggest. However, the percentage of households in poverty barely changed (22.85% to 22.75%), and it fluctuated during the period.

Other indicators are mixed. Homeless households fell by 13.5% from 99,510 to 86,050, but after falling to 64,890 in 2009 the figure rose every year, by 32.6% to 2017, and the number of people sleeping on the street in England more than doubled from 2,181 in 2011 to 4,751 in 2017 (an increase of 118%). This suggests that living standards of the poorest worsened, which may be linked to the 11% real cut in welfare spending per working-age adult. On the other hand, Figure 4 shows that male and female life expectancy rose and infant mortality fell, clear signs of better health, and greenhouse

Turn over ►



gas emissions fell from 746,377 to 566,378 thousand tonnes CO₂ equivalent, a fall of about 24%, which improves the environment and long-term wellbeing.

The data have limitations. They are national averages, so they hide differences between regions, age groups and households, and income per head says nothing about how it is distributed. Real GDP excludes non-marketed output such as unpaid work, the quality of goods and the value of leisure, and it can be revised. The homelessness definition is broad, and rough sleeper data only cover England and start in 2011. Also, the data only compare individual years, so the choice of start and end dates affects the conclusion, and they do not tell us what would have happened without the financial crisis.

Overall, the data suggest that living standards in the UK did improve between 2007 and 2017, but only slightly. Real income per head rose by just 2% to 4%, but unemployment was lower, inequality fell, people lived longer and the environment improved. Against this, rising homelessness and rough sleeping show that the poorest groups may have become worse off. The improvement was far smaller than in earlier decades, mainly because of the deep recession of 2008 to 2009 and the weak recovery in productivity, so most of the period was spent getting back to where the UK had been in 2007.



[illegible]

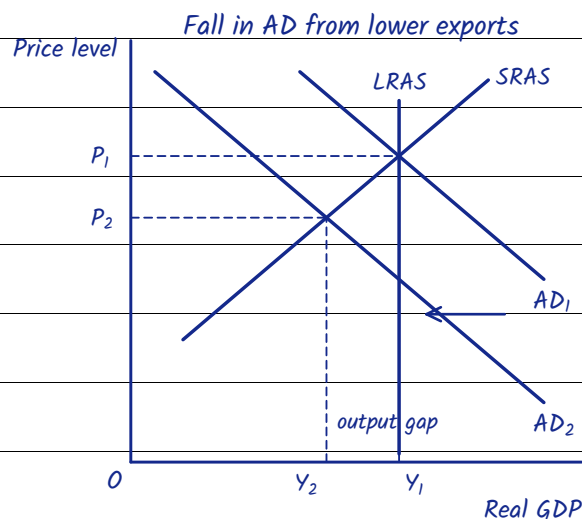
3 2

Explain how a sustained slowdown in the world economy is likely to affect living standards in the UK.

[15 marks]

A sustained slowdown in the world economy means that the rate of growth of world real GDP falls for several years. Extract C reports that the IMF forecast world growth falling from 3.7% in 2018 to 3.5% in 2019, with weaker activity in the eurozone and China.

The main way this affects the UK is through trade. When incomes abroad



grow more slowly, foreign households and firms buy fewer goods and services, including UK exports, because demand for exports depends on foreign incomes, and many UK exports such as financial services, cars and luxury goods are income elastic. Exports are an injection into the circular flow of income, so a fall in export growth reduces aggregate demand ($AD = C + I + G + X - M$). As shown in the diagram, AD shifts left from AD_1 to AD_2 , so real GDP falls from Y_1 to Y_2 and the price level falls from P_1 to P_2 , opening a negative output gap. The eurozone is the UK's largest export market, so a slowdown there matters more than one in the US.

The initial fall in exports leads to a larger fall in national income because of the multiplier. Workers and firms in export industries lose income, so they spend less on other goods and services, which reduces the incomes of people



in other industries, and so on. The size of the effect depends on the marginal propensities to save, tax and import: the multiplier is 1 divided by the marginal propensity to withdraw. The accelerator also matters: as the growth of demand slows, firms need less additional capacity, so investment falls by proportionately more, further reducing AD. Uncertainty and falling business confidence, made worse by rising protectionism and uncertainty over the UK's future relationship with the EU (Extract C), also reduce investment.

These effects reduce living standards. Real GDP per head and real household disposable income grow more slowly or fall. Because the demand for labour is derived from the demand for output, firms cut hours, freeze recruitment and make workers redundant, so cyclical unemployment rises from its low of 4.0% (Extract A). Unemployed people suffer a large fall in income and wellbeing, and weaker bargaining power means real wages for those in work grow more slowly. Profits fall, so dividends and share prices fall, reducing wealth and consumption through a negative wealth effect. Lower incomes and profits also reduce tax revenue and increase spending on benefits, so the government may have less to spend on public services such as health and education, which also affect living standards.

The effects would be uneven. Regions that depend heavily on manufacturing exports, such as the West Midlands and the North East, and industries like car production, would be hit hardest, which could widen regional inequality. Workers in sectors producing for the domestic market, such as many services, would be less affected.

There are also price effects. A world slowdown reduces the demand for commodities such as oil, metals and food, so world commodity prices tend to fall. Because the UK imports many of these, costs of production and the

Turn over ►



cost of living fall, shifting SRAS to the right and reducing inflation. This raises the real incomes of UK consumers and partly offsets the fall in real GDP caused by lower exports. Cheaper imports increase the purchasing power of households, especially those on low incomes who spend a large share of income on food and energy.

Other factors will influence the final impact. If the slowdown is accompanied by more protectionism, tariffs would reduce trade further, raise import prices and reduce the gains from specialisation, so living standards would fall more.

The depreciation of the pound since 2015 makes UK exports cheaper in foreign currencies and imports dearer, which Extract C says should boost net trade and so partly offset the fall in demand for exports, although it also raises import prices and the cost of living. The Bank of England might cut Bank Rate, and the government could use expansionary fiscal policy, to boost domestic demand and reduce the fall in AD. The impact also depends on how long the slowdown lasts: a sustained slowdown may cause hysteresis, as long-term unemployed workers lose skills and firms cancel investment, reducing the UK's productive potential and future living standards.

In summary, a sustained world slowdown is likely to reduce UK living standards mainly by lowering export demand, which through the multiplier and accelerator reduces real incomes and employment, although lower commodity prices and a weaker pound would offset part of this.



Extra space

[illegible]

3 3

After considering **Extract D**, and the original evidence in **Extracts A, B and C**, would you recommend that the government implement a further substantial increase in the National Living Wage? Justify your recommendation.

[25 marks]

The National Living Wage (NLW) is a legal minimum hourly wage for workers aged 25 and over, introduced in April 2016. Extract D shows it is £7.83 per hour, and the government is committed to raising it to 60% of median hourly earnings by 2020, compared with 45% when the National Minimum Wage started in 1999. A further substantial increase would push it towards the Living Wage Foundation's estimate of a realistic living wage of £9.00, or £10.55 in London. To make a recommendation I need to weigh its effects on low-paid workers, employment, inequality, firms and the wider economy.

The main argument for a further increase is that it would raise the living standards of the lowest paid. Extract A shows that real average weekly earnings were still £15 below the pre-crisis peak, but the NLW helped the bottom 40% of earners to see real earnings growth while the top 60% saw falls. A higher NLW would continue this, reducing wage inequality and in-work poverty, and the Gini coefficient, which fell from 0.347 to 0.322 (Extract B), might fall further. There is also a normative argument that a full-time worker should earn enough to live on, which the Living Wage Foundation says is 'the right thing to do'.

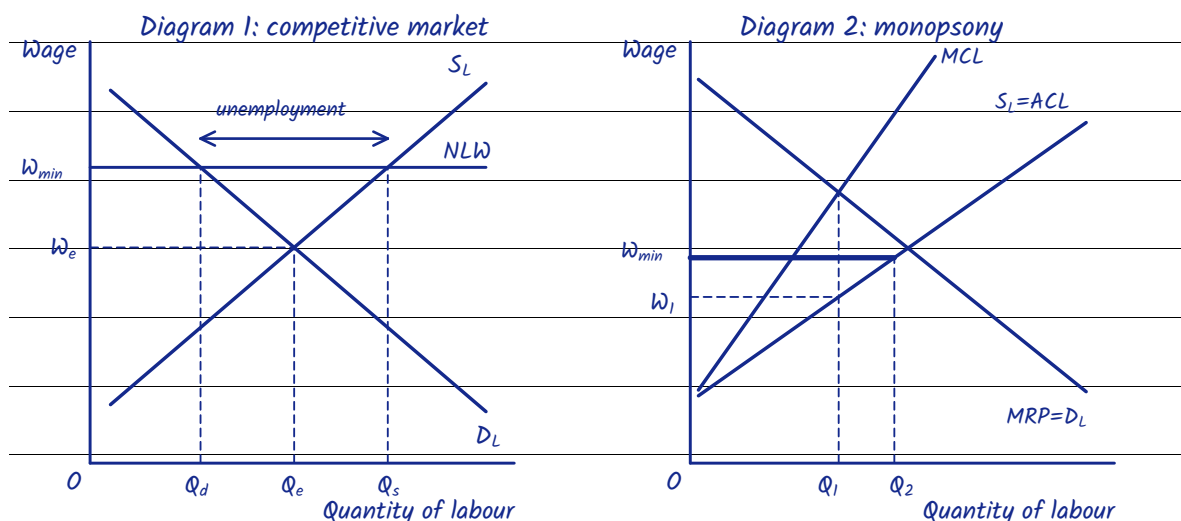
However, in a competitive labour market, economic theory predicts that a minimum wage set above the equilibrium will cause unemployment. As shown in Diagram 1, the equilibrium wage is W_e with employment Q_e . A minimum wage at W_{min} reduces the quantity of labour demanded to Q_d , because labour is now more expensive relative to capital and its marginal revenue product, while the quantity supplied rises to Q_s as the higher wage attracts more

Turn over ►

people into work. The excess supply $Q_s - Q_d$ is unemployment, and the workers who lose their jobs are worse off. The larger the increase, the further w_{min} is above w_e and the greater the unemployment.

The size of this effect depends on the wage elasticity of demand for labour.

Demand is more elastic when capital can easily be substituted for labour, when labour costs are a high proportion of total costs and when the demand for the final product is price elastic. Extract D notes that minimum wage jobs mainly involve routine tasks that are easily automated as new technologies such as AI and self-service machines are introduced, so demand



for this labour may become more elastic over time and a substantial increase could speed up automation. Industries such as retail, hospitality and social care, where wages are a large share of costs and many firms face strong competition, would be most affected. The OBR predicted that the higher NLW would lead to 60,000 more people being unemployed in 2020.

Evaluation: so far, the impact on employment has not been significant (Extract D), and unemployment has fallen to 4.0%, its lowest rate since 1975 (Extract A). One explanation is that many low-wage labour markets are not competitive. Where an employer has monopsony power, it pays a wage below the marginal revenue product of labour. In Diagram 2, the



monopsonist employs Q_1 workers where $MCL = MRP$ and pays only W_1 . A minimum wage at W_{min} makes the supply curve horizontal up to the ACL curve, so the marginal cost of labour equals W_{min} over this range. The firm now employs Q_2 workers at a higher wage: both pay and employment rise.

Large employers in towns with few other jobs, or in sectors such as social care, may have this power, so a rise in the NLW need not cause unemployment, as long as it is not set above the competitive wage.

A higher NLW may also raise productivity, which offsets the higher costs. Extract D says it can improve staff motivation, reduce absenteeism, improve retention and increase productivity. This is efficiency wage theory: higher pay reduces the cost of recruiting and training new workers and encourages greater effort. Firms faced with higher wage costs may also invest in training and better capital. This matters because UK productivity is only 2% to 3% higher than ten years ago (Extract D), and higher productivity is what allows sustained increases in real wages and living standards.

There may also be macroeconomic benefits. Low-income households have a high marginal propensity to consume, so redistributing income to them increases consumption and aggregate demand, which, through the multiplier, raises output and employment. Higher earnings also raise income tax and National Insurance revenue and reduce spending on in-work benefits such as Universal Credit, improving the government's budget position.

On the other hand, a substantial increase raises firms' costs. With weak productivity, Extract D says some firms have raised prices and others have accepted lower profits. Higher prices reduce the real value of the wage increase and hurt all consumers, including the poor, and could feed cost-push inflation, which could lead the Bank of England to raise interest rates.

Lower profits reduce the funds for investment, and UK firms that compete

Turn over ►



internationally become less price competitive, reducing exports, which is a particular risk when world growth is slowing (Extract C). Higher costs could also make the UK less attractive for foreign direct investment. In addition, workers just above the minimum may demand higher pay to restore wage differentials, raising costs further.

A further problem is that the NLW is poorly targeted at poverty. Extract D shows that only 22% of low-wage workers are in the poorest 20% of households, because many low-paid workers are second earners or young people in better-off households, while many of the poorest households have nobody in work, such as pensioners, the unemployed and the disabled. For many poor households, the 11% real cut in welfare spending per working-age adult (Extract A) will reduce their incomes by more than a higher NLW raises them. The percentage of households in poverty barely changed between 2006 to 07 and 2016 to 17 (22.85% to 22.75%), even after the NLW was introduced, and homelessness and rough sleeping rose. Living standards also depend on hours worked, taxes and benefits: as wages rise, Universal Credit is withdrawn, so a low-paid worker may keep only a small part of a pay rise. Other policies, such as raising the personal tax allowance, reducing the Universal Credit taper rate, restoring benefits for families with children, investing in skills and building more affordable homes, may be better targeted.

The effects also depend on the size and speed of the increase and on regional differences. A single national rate set at the London living wage of £10.55 would be well above the market wage in many lower-wage regions, where it could cause significant job losses, whereas a gradual increase gives firms time to adjust through productivity improvements. The effects also depend on the state of the economy: with unemployment at a 40-year low



the labour market is tight, so the risk of job losses is lower than in a recession, but if the world slowdown described in Extract C reduces demand, firms will find higher wage costs harder to absorb.

In conclusion, I would recommend a further increase in the NLW, but a gradual one rather than a sudden, very large rise. The evidence since 2016 suggests that the NLW has raised the earnings of the lowest paid without significantly increasing unemployment, which is consistent with employers having some monopsony power and with productivity gains offsetting part of the higher cost. However, the OBR's forecast of 60,000 more unemployed, the risk of faster automation of routine jobs, weak productivity growth and the slowing world economy mean that a substantial jump, for example straight to £9.00 or £10.55, could cause job losses, especially in low-wage regions and sectors. The increase should therefore be phased in, linked to median earnings and reviewed by the Low Pay Commission using evidence on employment. Most importantly, because the NLW is not well targeted at the poorest households, it should be combined with more generous welfare support and measures to raise productivity, since these are needed to raise the living standards of those who are not in work.

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