Surname	StemUp Model Solution	Centre Number	Candidate Number
First name(s)			2

GCE AS/A LEVEL

S24-2520U10-1

2520U10-1

MONDAY, 13 MAY 2024 – MORNING

ECONOMICS – AS unit 1
Introduction to Economic Principles

1 hour 15 minutes

For Examiner's use only		
Question	**Maximum Mark**	**Mark Awarded**
1–15	**15**	
16	**9**	
17	**8**	
18	**12**	
19	**11**	
Total	**55**	

2520U101
01

ADDITIONAL MATERIALS

A calculator.

INSTRUCTIONS TO CANDIDATES

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

You may use a pencil for graphs and diagrams only.

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, clear presentation in your answers.

JUN242520U10101

© WJEC CBAC Ltd.

stemup.co.uk

Examiner only

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. In April 2022, VAT was removed from solar panels in the UK.

This would be most likely to cause a decrease in: [1]

A Producer surplus in the market

B The quantity demanded of solar panels

C The supply of solar panels

D The price of solar panels

E Consumer surplus in the market

D

2. The use of expansionary demand side fiscal policy would be most likely to: [1]

A Increase public sector debt in the economy

B Decrease the level of aggregate demand in the economy

C Decrease the base interest rate in the economy

D Decrease the rate of inflation in the economy

E Increase the level of unemployment in the economy

A

3. Which one of the following is the most likely effect of a firm increasing its use of specialisation? [1]

A Workers develop a greater range of skills

B Trade union power falls within the firm

C Production costs per unit of output rise

D Profitability falls for the firm

E Productivity rises within the firm

E

© WJEC CBAC Ltd.

stemup.co.uk

Examiner only

Questions 4 and 5 refer to the table below.

The table below shows the cross price elasticities between fruit and other foods.

Food group	Cross price elasticity of demand with respect to fruit
Dairy products	−0.045
Meat	0.060
Fish	0.047
Vegetables	−0.021

4. Which one of the following can be concluded from the data in the table? [1]

A Fruit and vegetables are substitute goods

B Dairy products are inferior goods

C Fruit and dairy products are complementary goods

D Meat is a normal good

E Meat and fish are substitute goods

C

5. According to the data in the table, a 10% increase in the price of fruit would lead to a: [1]

A 0.21% increase in demand for vegetables

B 0.6% decrease in demand for meat

C 0.0047% increase in demand for fish

D 0.47% decrease in demand for fish

E 0.6% increase in demand for meat

E

© WJEC CBAC Ltd.

stemup.co.uk

Examiner only

6. The table below shows the annual percentage change in UK real gross domestic product (GDP) from 2017 to 2021.

	2017	2018	2019	2020	2021
Annual percentage change in real GDP	2.4	1.7	1.6	−11.0	7.6

From the data it can be concluded that, in the UK: [1]

A Real GDP fell between 2017 and 2019

B The economic growth rate was negative in 2018

C Real GDP rose at the fastest rate in 2021

D Per capita incomes rose throughout the period

E The economic growth rate was 18.6% in 2021

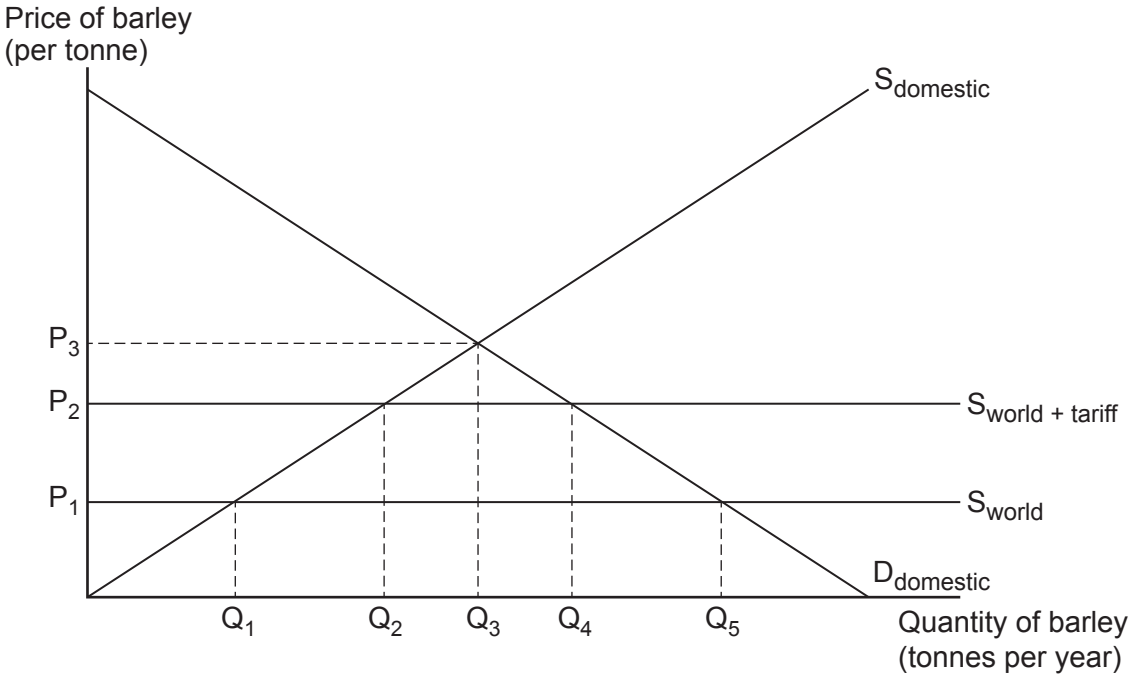
C

© WJEC CBAC Ltd.

stemup.co.uk

Examiner only

7. The diagram below shows a tariff being imposed on imports of barley into China at the world price P_1. [1]



According to the diagram, the effect of this tariff is that in China:

A The price of barley falls from P_3 to P_2

B The quantity of barley supplied domestically rises from Q_1 to Q_2

C The quantity of barley imported falls from Q_5 to Q_4

D The quantity of barley demanded domestically rises from Q_4 to Q_5

E The price of barley rises from P_1 to P_3

B

2520U101
05

© WJEC CBAC Ltd.

stemup.co.uk

Examiner only

8. The chart below gives information on the exchange rate of the US dollar to the Indian rupee (the currency of India) from January 2022 to October 2022.



From the chart it can be concluded that, over the period shown: [1]

A US exports became cheaper in India

B The US dollar depreciated against the Indian rupee

C The Indian central bank was using a 'managed' float system

D The Indian rupee depreciated against the US dollar

E Demand for the Indian rupee rose on foreign exchange markets

D

9. In 2021, the Welsh Government announced a £15.2 million funding package to support the regeneration of town centres in Wales.

As a result of this programme, the GDP of Wales is likely to increase by: [1]

A More than £15.2 million due to the multiplier process

B More than £15.2 million due to protectionism

C Less than £15.2 million due to safe haven issues

D Less than £15.2 million due to withdrawals from the circular flow

E Exactly £15.2 million due to the real balance effect

A

© WJEC CBAC Ltd.

stemup.co.uk

Examiner only

Questions 10 and 11 refer to the sentence below.

In July 2020, in response to the pandemic and to support businesses, the UK Government reduced the rate of VAT on goods and services provided by the hospitality (restaurant) sector from 20% to 5% for six months.

10. In response to this, McDonald's announced that the price of a Big Mac would fall by 6%.

In theory, this implies that the demand for a McDonald's Big Mac is: [1]

A Perfectly price inelastic

B Relatively price inelastic

C Unitary price elastic

D Relatively price elastic

E Perfectly price elastic

D

11. Healthy eating campaigners said that cutting the rate of VAT on junk food would lead to a less healthy population, with more people suffering from obesity and tooth decay.

If true, this may be an example of: [1]

A Market failure

B Monopoly power

C Progressive taxation

D Diminishing marginal utility

E Government failure

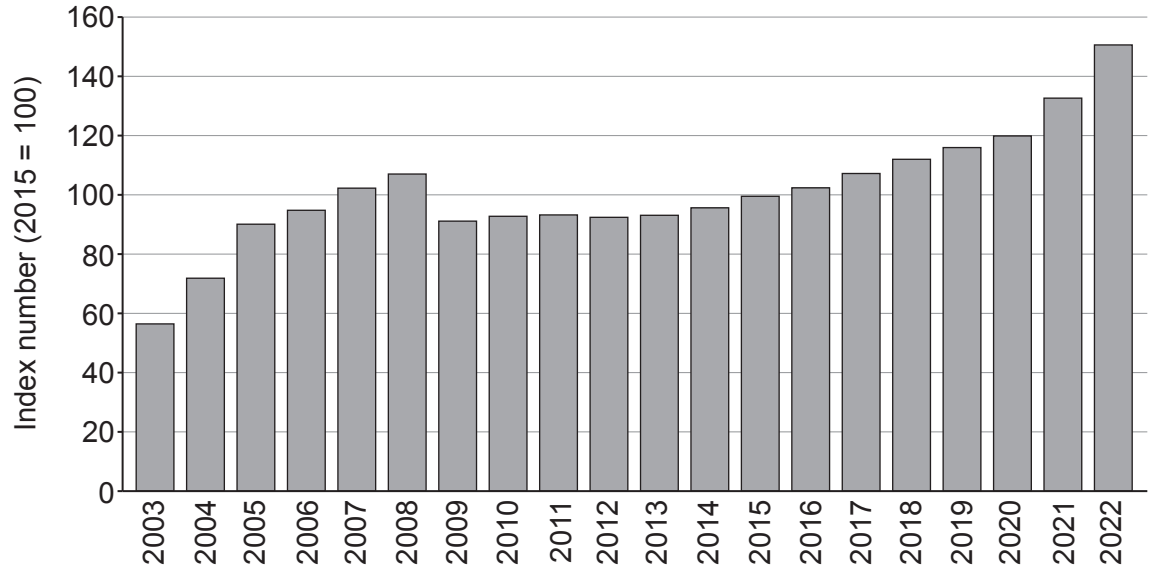
E

© WJEC CBAC Ltd.

stemup.co.uk

Examiner only

12. The chart below shows index data on the average price of a house in Wales, from 2003 to 2022 (2015 = 100). [1]



From the data it can be concluded that, in Wales, the average price of a house:

A Increased by approximately 50% between 2015 and 2022

B Was approximately £150 000 in 2022

C Increased by approximately 95% over the period shown

D Was approximately £100 000 in 2015

E Was lower in 2018 than in 2008

A

© WJEC CBAC Ltd.

stemup.co.uk

Examiner only

13. A £6.2m funding package for 2020–2022 was provided by the Welsh Government for the National Library of Wales and National Museum Wales.

One reason why the Welsh Government provides museums is that: [1]

A There is an absence of private property rights

B There is perfect information in the market

C They are free goods

D They are merit goods

E There are external costs in their production

D

14. Which one of the following correctly describes the shape of the Keynesian long run aggregate supply (LRAS) curve? [1]

A It is perfectly inelastic at high levels of spare capacity

B It is perfectly inelastic at the full employment level of output

C It is unitary elastic at all levels of output

D It is unitary elastic at high levels of spare capacity

E It is perfectly elastic at the full employment level of output

B

15. Which of the following is most likely to cause a decrease in consumption in an economy? [1]

A A decrease in interest rates

B An increase in real incomes

C A decrease in average house prices

D An increase in welfare payments

E A decrease in the basic rate of income tax

C

15

2520U101
09

© WJEC CBAC Ltd.

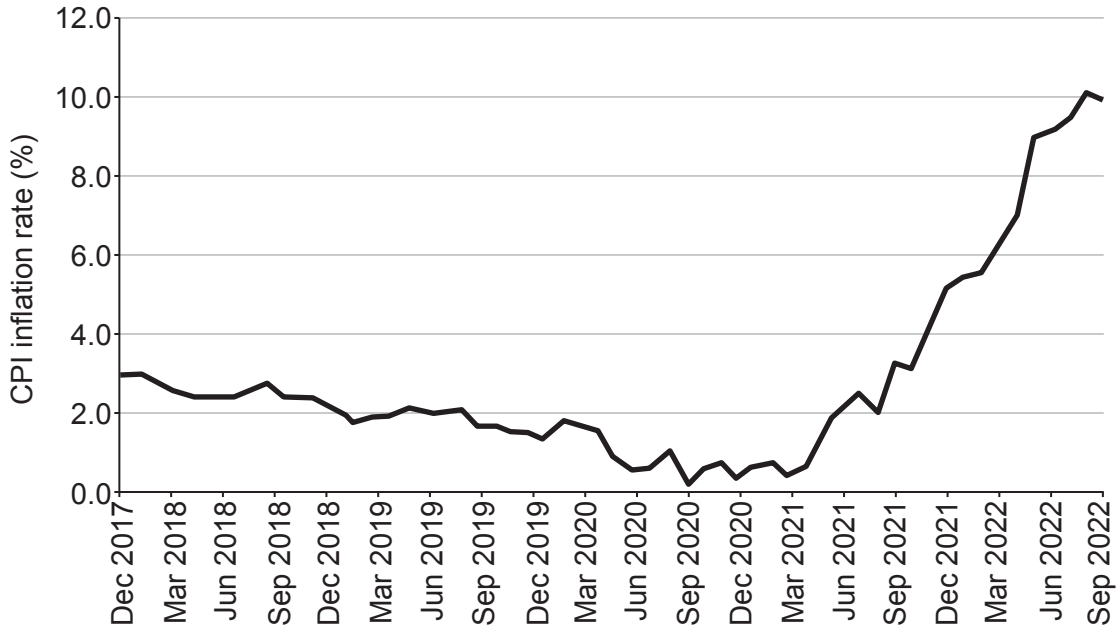
stemup.co.uk

Examiner only

SECTION B

Answer **all** the questions in the spaces provided.

16. The chart below shows the annual CPI inflation rate for the UK from December 2017 to September 2022.



(a) Describe what happened to the **average price level** in the UK economy from December 2017 to September 2020. [2]

The average price level rose throughout the whole period, as CPI inflation stayed positive, but it rose at a decreasing rate: inflation fell from about 3.0% in Dec 2017 to only about 0.5% in Sep 2020, so prices were still rising, just more slowly.

© WJEC CBAC Ltd.

stemup.co.uk

Examiner only

(b) Assess the performance of the Bank of England in meeting its inflation target from September 2020 to September 2022. [4]

The Bank of England's target is 2% CPI inflation and it is symmetrical: if inflation is more than 1 percentage point either side (outside 1% to 3%) the Governor must write to the Chancellor. At first the Bank did well: inflation rose from about 0.5% in Sep 2020 towards target in the first half of 2021, and was within the 1% to 3% range for four months, April to July 2021. However, from Aug 2021 (about 3.2%) it was above the range for the rest of the period, reaching about 10.1% in Sep 2022, five times the target. Overall the Bank failed, although much of this was cost-push inflation from global energy prices outside its control.

(c) Explain why achieving low inflation may conflict with **one** other government macroeconomic policy objective. [3]

Another objective is low unemployment. To reduce inflation the Bank of England may raise Bank Rate (contractionary monetary policy). This raises the cost of borrowing and the reward for saving, so consumption and investment fall, reducing aggregate demand. Firms cut output and, as labour is a derived demand, need fewer workers, so unemployment rises (and growth slows). So low inflation may conflict with low unemployment.

9

© WJEC CBAC Ltd.

stemup.co.uk

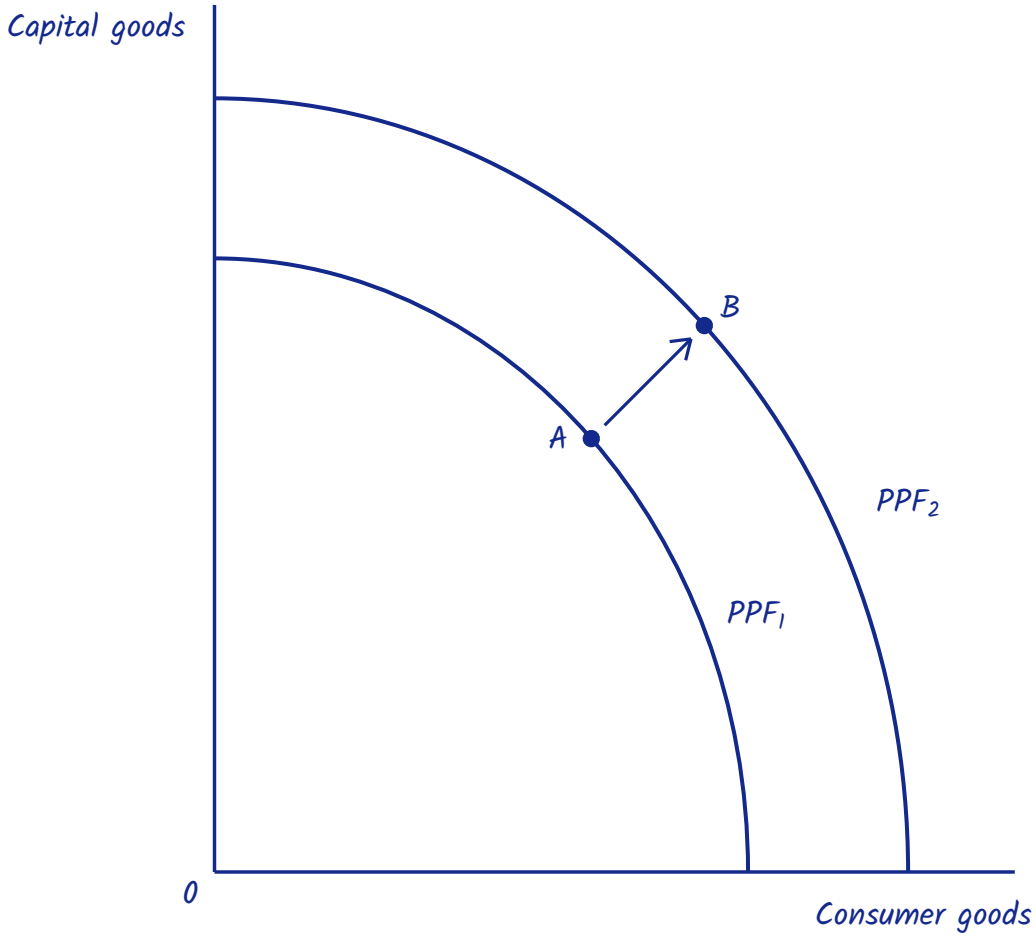
Examiner only

17. The Wales Infrastructure Investment Plan includes spending on transport improvements and other infrastructure projects across the country. Between 2021 and 2026 this will include:

- £585 m investment in rail
- £185 m investment in bus travel
- £100 m investment in flood defences

(a) With reference to the data, outline the likely effect of this infrastructure spending on the Welsh economy's **production possibility frontier**. Illustrate your answer with an appropriate diagram. [4]

Draw your diagram in the space below.



The £585m in rail, £185m in bus travel and £100m in flood defences increase the quantity and quality of capital (a factor of production) in Wales. Faster, cheaper transport raises the productivity of firms and workers, and flood defences protect existing capital, so productive capacity rises. As the diagram shows, the PPF shifts outwards from PPF_1 to PPF_2, so Wales can produce more of both goods, e.g. moving from A to B.

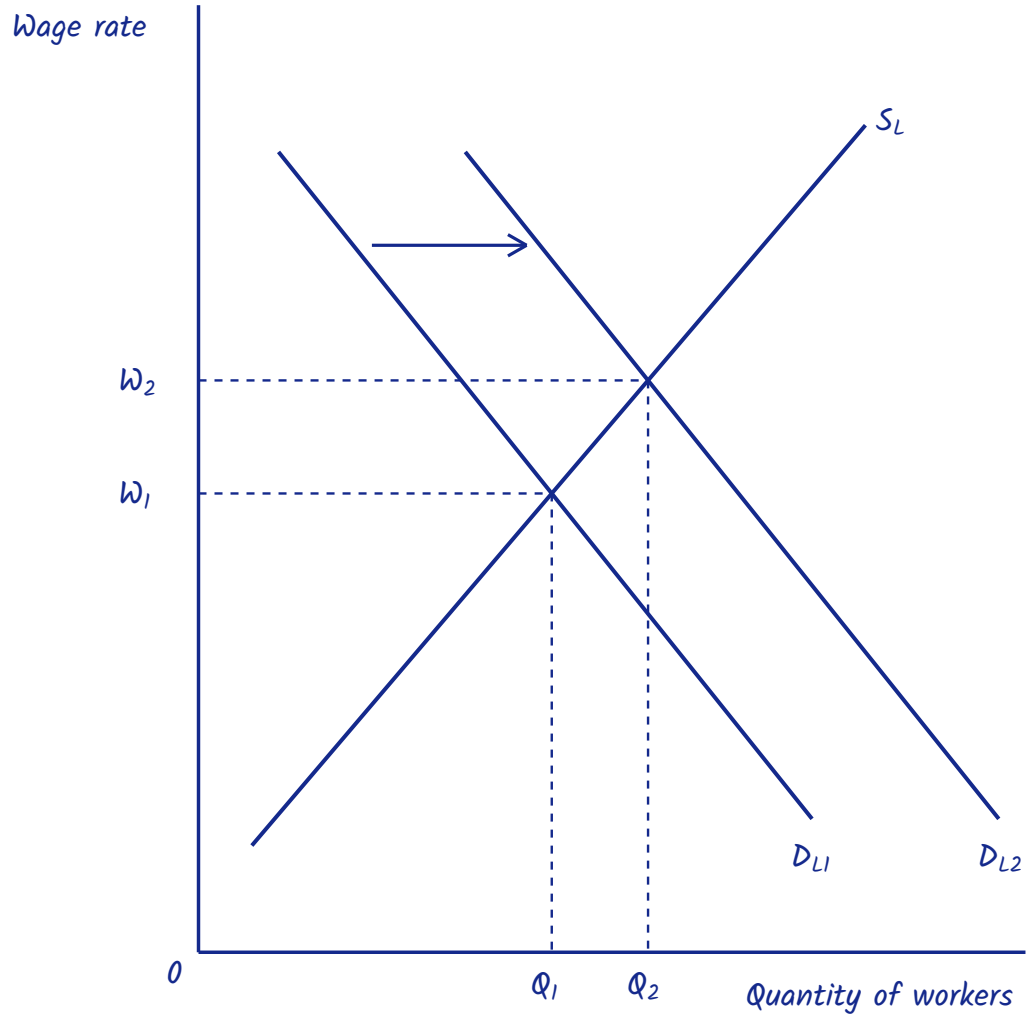
© WJEC CBAC Ltd.

stemup.co.uk

Examiner only

(b) Explain the likely effect of this infrastructure spending on wage rates for construction workers in Wales. Illustrate your answer with a labour market diagram. [4]

Draw your diagram in the space below.



Labour is a derived demand: the infrastructure projects (£870m in total) need construction workers to build them, so demand for construction workers rises from D_{L1} to D_{L2}. At the original wage W_1 there is a shortage of workers, so firms compete for labour and bid up wages. As the diagram shows, the wage rate rises from W_1 to W_2 and employment rises from Q_1 to Q_2 as more workers are attracted into construction. The rise is larger if labour supply is inelastic, e.g. a shortage of skilled builders.

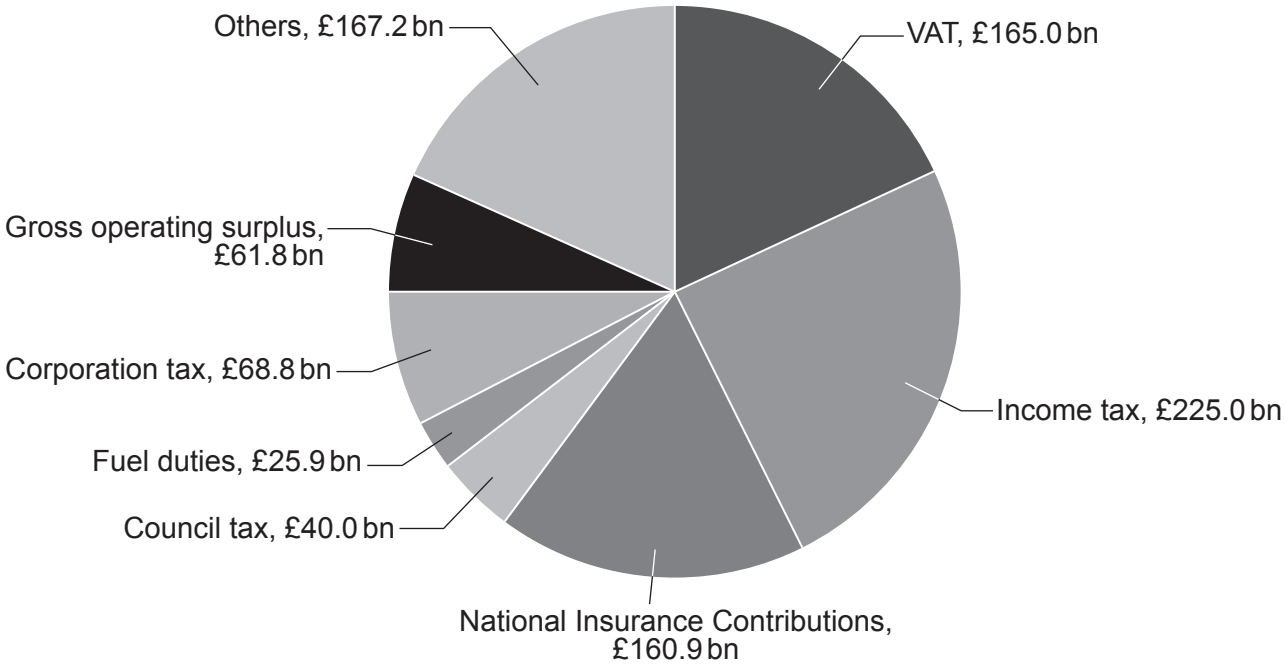
8

© WJEC CBAC Ltd.

stemup.co.uk

Examiner only

18. The chart below shows the sources of revenue for the UK Government in 2021–22.



(a) Using an example from the chart, describe what is meant by a direct tax. [2]

A direct tax is a tax on income or wealth paid directly to the government (HMRC) by the person or firm on whom it is levied, so the burden cannot be passed on to anyone else. For example, income tax, which raised £225.0bn in 2021–22.

(b) Calculate the revenue from VAT receipts as a percentage of the UK Government's total revenue in 2021–2022. [2]

You are advised to show your working.

Total revenue = 225.0 + 167.2 + 165.0 + 160.9 + 68.8 + 61.8 + 40.0 + 25.9 = £914.6bn

VAT % = (165.0 ÷ 914.6) × 100 = 18.04% (2 d.p.)

© WJEC CBAC Ltd.

stemup.co.uk

Examiner only

The composition of government revenue in Wales differs from the UK as a whole. Direct taxes comprise a smaller share of Welsh revenue, whilst a greater share is raised through indirect taxes.

(c) Assess the advantages and disadvantages of using indirect taxes. [8]

An indirect tax is a tax on spending, such as VAT or fuel duty, which producers can pass on to consumers through higher prices.

Advantages. First, indirect taxes can correct market failure. Demerit goods such as cigarettes, and goods with negative externalities such as petrol, have marginal social cost above marginal private cost, so they are over-consumed. A tax equal to the external cost shifts supply left, raising price and cutting quantity towards the social optimum, internalising the external cost and reducing the welfare loss.

Second, indirect taxes harm incentives less than direct taxes. Income tax reduces the reward for work, but indirect taxes do not cut the take-home wage directly, so they are less likely to distort the choice between work and leisure, helping the supply side.

Third, they are hard to avoid or evade as firms collect them at the point of sale, and the tax base is broad as everyone who spends pays, at all income levels. They can be changed quickly, e.g. the 2020 VAT cut for hospitality, giving policy-makers flexibility, and as they are paid in small amounts when buying, taxpayers feel the burden less.

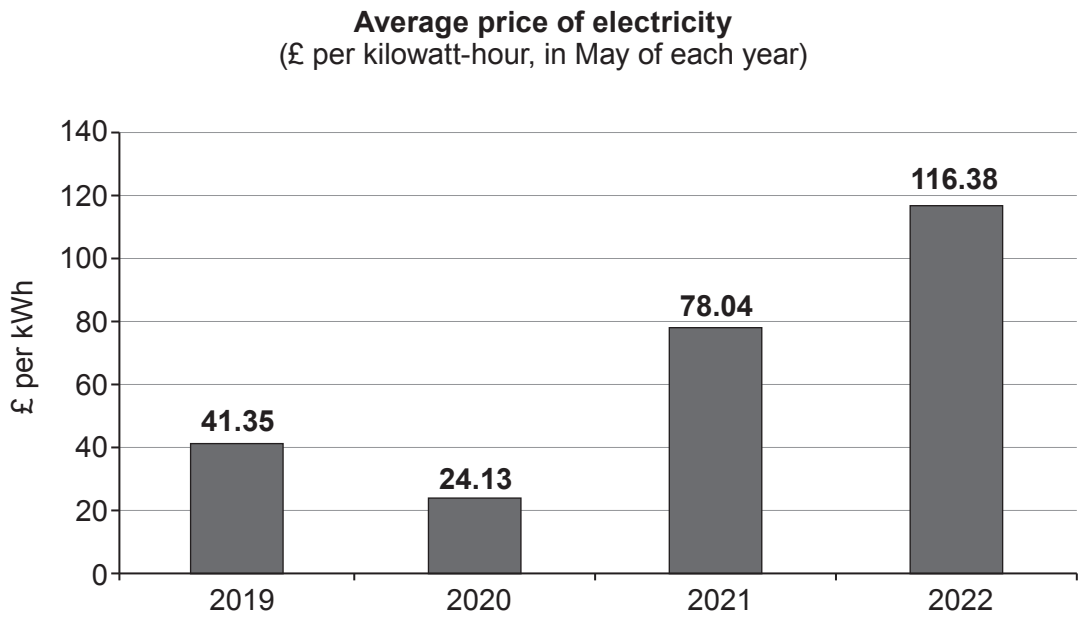
12

© WJEC CBAC Ltd.

stemup.co.uk

Examiner only

19. The chart below shows the average price of electricity for households in May of each year from 2019 to 2022.



The price elasticity of demand for the average electricity bill is estimated to be −0.2.

(a) Calculate the expected percentage change in the quantity of electricity demanded between 2021 and 2022. [3]

You are advised to show your working.

PED = %ΔQd ÷ %ΔP, so %ΔQd = PED × %ΔP

%ΔP = (116.38 − 78.04) ÷ 78.04 × 100 = 49.1%

%ΔQd = −0.2 × 49.1% = −9.8% (1 d.p.)

Quantity demanded is expected to fall by 9.8%.

© WJEC CBAC Ltd.

stemup.co.uk

Examiner only

On 1 October 2022, an Energy Price Guarantee for households came into effect in the UK. This is a maximum price for electricity and gas. The maximum price depended on where consumers lived.

Region	Electricity (pence per unit, excluding VAT)	Gas (pence per unit, excluding VAT)
North Wales and Mersey	34.3	9.9
South Wales	32.3	9.9
Northern England	30.7	9.7
London	34.1	10.0

Energy suppliers were fully compensated by the Government for the reduced prices they charged their customers.

(b) Discuss the impacts of the Energy Price Guarantee. [8]

The Energy Price Guarantee (EPG) is a maximum price: a legally imposed price ceiling, set below the market equilibrium, above which energy prices cannot rise, e.g. 32.3p per unit for electricity in South Wales.

Households: energy is a necessity with price inelastic demand (PED −0.2), so when prices rose by 49.1%, from £78.04 to £116.38 between 2021 and 2022, households could not easily cut use and spent a much larger share of disposable income on energy. The EPG lowers the price, protecting living standards and leaving more income for other goods, which supports consumption and aggregate demand.

Suppliers: normally a maximum price below equilibrium causes excess demand and a shortage, as firms cut supply. But as suppliers were fully compensated by the Government, they still receive the market price, so supply should not fall and households can use energy as normal, while firms keep profits to invest in the network.

Government: since every household buys energy, the Government is effectively subsidising every household. This is very expensive, worsening the budget deficit and national debt, with an opportunity cost such as less spending on health or

11

END OF PAPER

© WJEC CBAC Ltd.

stemup.co.uk

Question number	Additional page, if required. Write the question number(s) in the left-hand margin.
18 (c)	Disadvantages. However, indirect taxes are regressive: low income households spend a higher proportion of their income, so VAT takes a larger % of their income than of high earners', worsening income inequality. This matters in Wales, where a greater share of revenue comes from indirect taxes. They also raise the price level, which is cost-push inflationary and may trigger higher wage claims. Where there was no market failure, they cause a loss of consumer and producer surplus, a deadweight welfare loss. High taxes encourage smuggling and a black market, e.g. in tobacco, a form of government failure. Their effect also depends on PED: if demand is inelastic they raise revenue but change behaviour very little. Collection costs for many small firms can also be high. Overall, indirect taxes are a useful way to raise revenue and correct externalities, but because they are regressive they are best combined with progressive direct taxes.
19 (b)	education. Lower prices also weaken the incentive to save energy or switch to greener options such as heat pumps, so negative externalities from fossil fuels continue. Evaluation: the impact depends on targeting. All households benefit regardless of income, so it is poorly targeted; means-tested support would be cheaper and fairer. The regional caps differ: Northern England pays 30.7p but North Wales and Mersey pays 34.3p, so Welsh households are supported less, which could widen regional inequality. It also depends on the time scale: energy prices are volatile, and if they fall back towards the 2020 level of £24.13, support is needed only briefly and the effect on the deficit is small. A time

Examiner only

© WJEC CBAC Ltd.

stemup.co.uk

Question number	Additional page, if required. Write the question number(s) in the left-hand margin.
19 (b)	lag before suppliers are compensated could hit their cash flow and service quality. Overall, the EPG is likely to protect households effectively in the short run, but at a high cost to public finances and possibly the environment.

Examiner only

© WJEC CBAC Ltd.

stemup.co.uk

BLANK PAGE

PLEASE DO NOT WRITE ON THIS PAGE

© WJEC CBAC Ltd.

stemup.co.uk