Cambridge International AS & A Level

Cambridge International Examinations
Cambridge International Advanced Subsidiary and Advanced Level

ECONOMICS **9708/31**

Paper 3 Multiple Choice **May/June 2017**

1 hour 15 minutes

Additional Materials: Multiple Choice Answer Sheet
Soft clean eraser
Soft pencil (type B or HB is recommended)

READ THESE INSTRUCTIONS FIRST

Write in soft pencil.
Do not use staples, paper clips, glue or correction fluid.
Write your name, Centre number and candidate number on the Answer Sheet in the spaces provided unless this has been done for you.
DO **NOT** WRITE IN ANY BARCODES.

There are **thirty** questions on this paper. Answer **all** questions. For each question there are four possible answers **A**, **B**, **C** and **D**.
Choose the **one** you consider correct and record your choice in **soft pencil** on the separate Answer Sheet.

Read the instructions on the Answer Sheet very carefully.

Each correct answer will score one mark. A mark will not be deducted for a wrong answer.
Any rough working should be done in this booklet.

1 What would be an example of a market failure?

A higher prices for hotel rooms at holiday periods

B noise pollution experienced near major airports

C periods of inflation when prices of all goods and services rise

D 20% of a country's population live in poverty

Answer:
Market failure occurs when the allocation of goods and services by a free market is not efficient, leading to a net social welfare loss. Let's examine each option:

Option A: Higher prices for hotel rooms at holiday periods. This is an example of market forces of supply and demand at work, not market failure. During peak periods, demand for hotel rooms increases, leading to higher prices. This is a normal market response and not a failure.

Option B: Noise pollution experienced near major airports. Noise pollution is an example of a negative externality, where the costs are imposed on third parties not involved in the transaction. This is a classic case of market failure because the market does not account for these external costs, leading to overproduction of the activity causing the pollution.

Option C: Periods of inflation when prices of all goods and services rise. Inflation is a macroeconomic phenomenon and can be influenced by various factors, including monetary policy. It is not typically considered a market failure, but rather a broader economic issue.

Option D: 20% of a country's population live in poverty. While poverty is a significant social issue, it is not, in itself, a market failure. Market failure refers to the inefficiency in the allocation of resources, whereas poverty can result from various factors, including lack of access to resources and opportunities.

The correct answer is B: Noise pollution experienced near major airports. This situation exemplifies a market failure due to the presence of negative externalities that the market fails to address efficiently.

2 What is a necessary condition for the achievement of productive efficiency?

A the removal of all externalities

B the elimination of all divergences between private and social costs

C equality between price and marginal cost in all industries

D the production of a good at minimum average cost for a given output

Answer:
Productive efficiency occurs when a good or service is produced at the lowest possible cost. It means that resources are being used in the most efficient way possible to produce goods and services. Let's evaluate each option:

Option A: The removal of all externalities. Externalities are costs or benefits that affect third parties who are not involved in the economic transaction. While their removal can lead to a more socially optimal allocation of resources, it is not directly related to productive efficiency, which focuses on cost minimization in production.

Option B: The elimination of all divergences between private and social costs. This addresses allocative efficiency by ensuring that the full social costs of production are considered. While important for overall economic efficiency, it is not specifically related to productive efficiency, which is about minimizing production costs.

Option C: Equality between price and marginal cost in all industries. This condition is related to allocative efficiency, where resources are optimally distributed to produce the combination of goods and services most desired by society. It ensures that the value consumers place on a good equals the cost of resources used to produce it but does not directly address productive efficiency.

Option D: The production of a good at minimum average cost for a given output. This option directly addresses productive efficiency. It indicates that production is occurring in the most cost-effective manner, utilizing resources in such a way that the average cost per unit is minimized.

The correct answer is D: The production of a good at minimum average cost for a given output. This condition is necessary for achieving productive efficiency, as it ensures that resources are used optimally to minimize production costs.

3 The table shows the expected costs and benefits from four government projects. The government can afford only one project.

Which project should the government choose?

	private benefits ($m)	external benefits ($m)	private costs ($m)	external costs ($m)
A	40	200	60	70
B	60	160	100	20
C	100	210	100	120
D	150	90	120	140

Answer:
To choose the best project, we should calculate the net benefits for each project. The net benefit is determined by subtracting the total costs (private costs + external costs) from the total benefits (private benefits + external benefits).
Let's calculate the net benefits for each project:

Project A:

Total Benefits = 40 + 200 = 240
Total Costs = 60 + 70 = 130
Net Benefit = 240 - 130 = 110

Project B:

Total Benefits = 60 + 160 = 220
Total Costs = 100 + 20 = 120
Net Benefit = 220 - 120 = 100

Project C:

Total Benefits = 100 + 210 = 310
Total Costs = 100 + 120 = 220
Net Benefit = 310 - 220 = 90

Project D:

Total Benefits = 150 + 90 = 240
Total Costs = 120 + 140 = 260
Net Benefit = 240 - 260 = -20

The project with the highest net benefit is Project A, with a net benefit of 110 million dollars. Therefore, the government should choose Project A.

4 Which statement about indifference curves is correct?

A The indifference curves for inferior goods can show higher satisfaction on lower curves.

B The indifference curves for normal goods show a diminishing marginal rate of substitution.

C The indifference curves for perfect complements go through the origin.

D The indifference curves for perfect substitutes are right-angled.

Answer:
Indifference curves represent different combinations of two goods that provide the same level of satisfaction or utility to a consumer. Let's evaluate each statement:

Option A: The indifference curves for inferior goods can show higher satisfaction on lower curves. This statement is incorrect. Indifference curves do not indicate the nature of goods (inferior or normal) but rather the level of utility. Higher indifference curves always represent higher levels of satisfaction, regardless of whether the goods are inferior or normal.

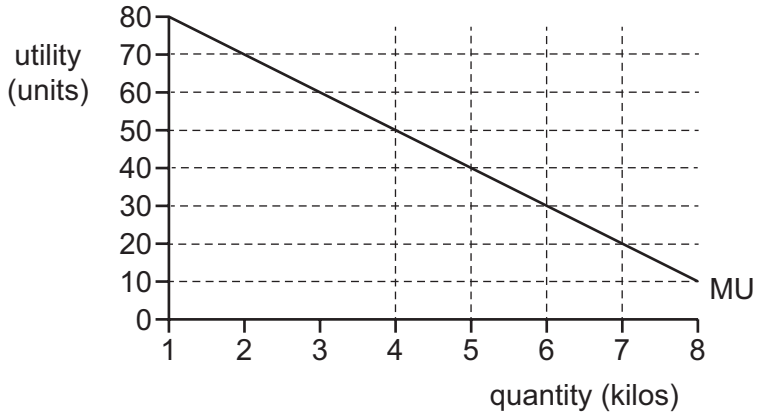
Option B: The indifference curves for normal goods show a diminishing marginal rate of substitution. This statement is correct. The marginal rate of substitution (MRS) refers to the rate at which a consumer is willing to give up one good in exchange for another while maintaining the same level of utility. For normal goods, the MRS typically diminishes as more of one good is consumed, reflecting the consumer's willingness to substitute one good for another.

Option C: The indifference curves for perfect complements go through the origin. This statement is incorrect. Indifference curves for perfect complements are L-shaped and do not necessarily go through the origin. They reflect the fixed proportions in which the goods are consumed together.

Option D: The indifference curves for perfect substitutes are right-angled. This statement is incorrect. Indifference curves for perfect substitutes are straight lines, not right-angled, because the consumer is willing to substitute one good for another at a constant rate.

The correct answer is B: The indifference curves for normal goods show a diminishing marginal rate of substitution. This reflects the typical consumer behavior where the willingness to substitute one good for another decreases as they consume more of it.

5 The diagram shows the marginal utility (MU) that an individual derives from a good at different levels of consumption.



The utility he derives from the last $ he spends on every good is 4 units.

Assuming the marginal utility of money is constant, which quantity will he purchase if the price of the good is $10?

A 4 kilos **B** 5 kilos **C** 6 kilos **D** 7 kilos

To determine the quantity he will purchase, we need to equate the marginal utility per dollar spent on the good to the utility he derives from the last dollar he spends on every good.
Given:
The utility from the last dollar spent is 4 units.
The price of the good is $10.
The marginal utility per dollar spent should be equal to 4 units. Therefore, we need to find the quantity where:
Marginal Utility (MU) divided by 10 equals 4.
Solving for Marginal Utility (MU), we have:
MU = 4 multiplied by 10 = 40 units.

From the graph, at 5 kilos, the marginal utility is 40 units. Therefore, the individual will purchase 5 kilos when the price of the good is $10.
Answer: B) 5 kilos

6 The takeover of a life assurance company by a bank is an example of

A horizontal integration.

B lateral integration.

C vertical backwards integration.

D vertical forwards integration.

Answer:
To understand the type of integration a takeover represents, it's important to consider the business activities involved:

Horizontal Integration: This occurs when two companies in the same industry and at the same stage of production merge or are taken over. For example, if one bank takes over another bank, that would be horizontal integration.

Lateral Integration: This is not a commonly used term in economics. It might refer to the merger of companies that produce related but not competing products, although it's not a standard term in the context of business integration.

Vertical Backwards Integration: This involves a company taking over another company that operates earlier in the supply chain. For example, a car manufacturer taking over a tire supplier would be vertical backwards integration.

Vertical Forwards Integration: This involves a company taking over another company that operates later in the supply chain. For example, a manufacturer taking over a retail outlet to sell its products directly would be vertical forwards integration.

In this context, the takeover of a life assurance company by a bank does not fit the typical definitions of horizontal integration, vertical backwards integration, or vertical forwards integration. However, the takeover can be seen as an example of lateral integration, where a company diversifies into a related field; in this case, financial services, combining banking with insurance services.
So, the correct answer is B: lateral integration.

7 Imperfect competition is distinguished from perfect competition in that, in long-run equilibrium,

A supply is elastic.

B demand is inelastic.

C marginal cost will be below average cost.

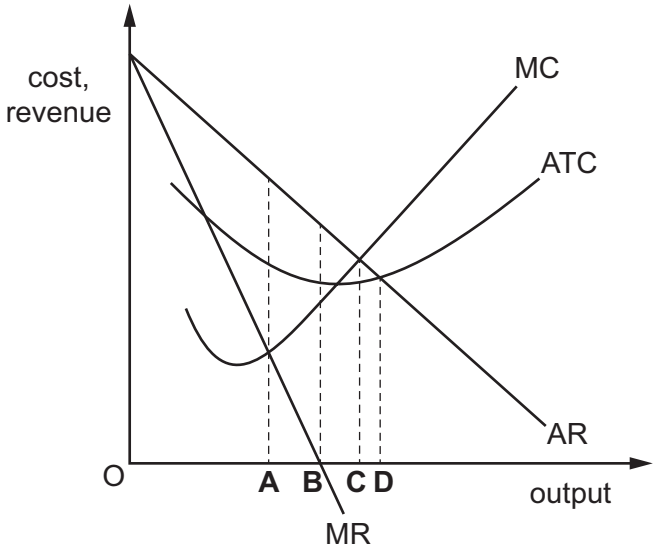
D average revenue will be below marginal revenue.

In imperfect competition, firms have some degree of market power, allowing them to set prices above marginal cost. In long-run equilibrium under imperfect competition:
A supply is elastic. In imperfect competition, supply elasticity can vary, but this is not a distinguishing feature.
B demand is inelastic. Demand can be elastic or inelastic depending on the product and market, not a key feature of imperfect competition.
C marginal cost will be below average cost. In imperfect competition, firms may not produce at the lowest point on the average cost curve, but marginal cost below average cost is not a distinguishing equilibrium feature.
D average revenue will be below marginal revenue. This is incorrect; in imperfect competition, average revenue is typically above marginal revenue due to downward-sloping demand curves.
Therefore, none of these options correctly describe the distinguishing feature in long-run equilibrium for imperfect competition. However, if we had to choose the closest related concept:
C marginal cost will be below average cost.

This is because firms in imperfect competition typically do not produce at the minimum of their average cost curve, but this is not a defining feature of long-run equilibrium specifically.

8 The diagram shows the cost and revenue curves of a firm in imperfect competition.

At which output will the firm produce if it wishes to make some supernormal profit to satisfy its shareholders and at the same time to allocate resources efficiently?



Let's analyze the diagram and solve the problem from the beginning.

To determine the output where the firm makes supernormal profit and allocates resources efficiently, we need to focus on two key aspects:

Supernormal Profit: This occurs when the firm's Average Revenue (AR) is greater than its Average Total Cost (ATC). The firm earns more than the normal profit, which pleases shareholders.

Efficient Resource Allocation: In imperfect competition, this is achieved where Marginal Cost (MC) equals Marginal Revenue (MR). This is the point of profit maximization.

Analyzing the Diagram:

The intersection of the MC and MR curves indicates the output level where the firm maximizes profit.
At this intersection, the output level is labeled C.
At output level C, the AR (or demand curve) is above the ATC curve, indicating that the firm is making supernormal profits.

Thus, the firm will produce at output level C to achieve both supernormal profits and efficient resource allocation. Therefore, the correct answer is:

9 What makes it harder for a small firm to compete against large firms in the same industry?

A Copyrights on the product have expired.

B Customers want individual product designs.

C The cost of entering the industry is low.

D The industry's product is standardised.

Answer:
To understand what makes it harder for a small firm to compete against large firms in the same industry, let's evaluate each statement:

Option A: Copyrights on the product have expired. When copyrights expire, it allows more firms to produce similar products, potentially increasing competition. However, it doesn't inherently make it harder for small firms to compete against large firms, since both small and large firms have the opportunity to enter the market with similar products.

Option B: Customers want individual product designs. This scenario could actually benefit small firms, as they might be more agile and able to tailor products to individual customer needs compared to larger firms, which may focus on mass production.

Option C: The cost of entering the industry is low. Lower entry costs make it easier for new firms, including small firms, to enter the industry. This might increase competition overall, but it doesn't specifically make it harder for small firms to compete against large firms.

Option D: The industry's product is standardized. When products are standardized, large firms often have an advantage due to economies of scale. They can produce large quantities at a lower cost per unit, which can make it challenging for small firms to compete on price. Standardization can reduce the ability of small firms to differentiate their products, leading to increased competition based primarily on price.

The correct answer is D: The industry's product is standardized. Standardization typically favors large firms that can capitalize on economies of scale, making it more difficult for smaller firms to compete effectively.

10 A firm operates at the maximum point on its average product curve.

What necessarily follows?

A Average variable cost is at a minimum.

B Marginal cost is at a minimum.

C Marginal product is at a maximum.

D Total profit is at a maximum.

Answer:
To determine what necessarily follows when a firm operates at the maximum point on its average product curve, let's analyze each option:

Option A: Average variable cost is at a minimum. The average product curve is related to the productivity of inputs, typically labor. When average product is at its maximum, the average variable cost (AVC), which is inversely related to productivity, is indeed at a minimum. This is because higher productivity means lower costs per unit of output.

Option B: Marginal cost is at a minimum. Marginal cost is related to marginal product, not average product. When average product is at its maximum, marginal product is equal to average product, but this doesn't necessarily mean marginal cost is at a minimum. Marginal cost is at a minimum when marginal product is at its maximum.

Option C: Marginal product is at a maximum. This statement is incorrect. When average product is at its maximum, marginal product equals average product, but it is not necessarily at its maximum.

Option D: Total profit is at a maximum. Total profit is influenced by both costs and revenues, not solely by the average product. Therefore, the maximum point on the average product curve does not necessarily correspond to the maximum total profit.

The correct answer is A: Average variable cost is at a minimum. This is because when the average product of an input is maximized, the cost per unit of output (average variable cost) is minimized due to increased productivity.

11 The dominant firm in an oligopoly sets up a research institute to carry out new product development.

Which two features of oligopoly are present in this project?

A creation of barriers to entry and collusion

B creation of barriers to entry and non-price competition

C non-price competition and price leadership

D price leadership and collusion

Answer:
In an oligopoly, the actions of one firm can significantly impact the market and other firms. Let's evaluate each pair of features in the context of the dominant firm setting up a research institute for new product development:

Option A: Creation of barriers to entry and collusion. While setting up a research institute could create barriers to entry by developing advanced products that new competitors might find hard to replicate, collusion refers to firms working together to set prices or output, which is not directly related to setting up a research institute.

Option B: Creation of barriers to entry and non-price competition. This is a strong possibility. The research institute could develop unique products or technologies, creating barriers for new entrants. Additionally, investing in research and development is a form of non-price competition, as it focuses on product differentiation rather than pricing strategies.

Option C: Non-price competition and price leadership. Non-price competition is present here due to the focus on product development and differentiation. However, price leadership involves a dominant firm setting prices that other firms in the oligopoly follow, which is not directly related to setting up a research institute.

Option D: Price leadership and collusion. Price leadership involves the dominant firm influencing the pricing strategies of other firms, while collusion involves firms working together to control the market. Neither is directly related to setting up a research institute focused on product development.

The correct answer is B: Creation of barriers to entry and non-price competition. The research institute enhances the firm's ability to innovate and differentiate its products, which creates barriers to entry and exemplifies non-price competition.

12 What is the essential feature of nudge theory?

A the aim of satisficing

B the establishing of a legal requirement

C the existence of a contestable market

D the idea of persuasion

Answer:
Nudge theory focuses on influencing people's behavior in subtle ways without restricting their choices. Let's examine each option to identify the essential feature of nudge theory:

Option A: The aim of satisficing. Satisficing refers to making decisions that are "good enough" rather than optimal. This concept is more related to decision-making processes than to nudge theory, which focuses on influencing choices.

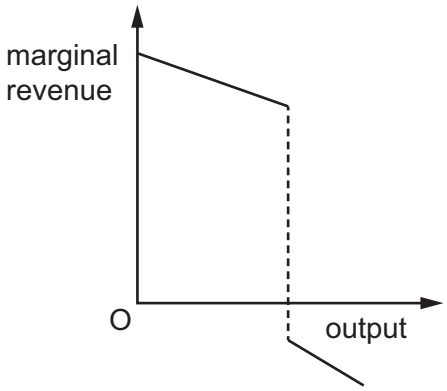
Option B: The establishing of a legal requirement. Nudge theory does not involve imposing legal requirements. Instead, it emphasizes using subtle cues to influence decision-making without mandating behavior.

Option C: The existence of a contestable market. Contestable market theory relates to market structures where entry and exit are easy, allowing for potential competition. This concept is unrelated to nudge theory.

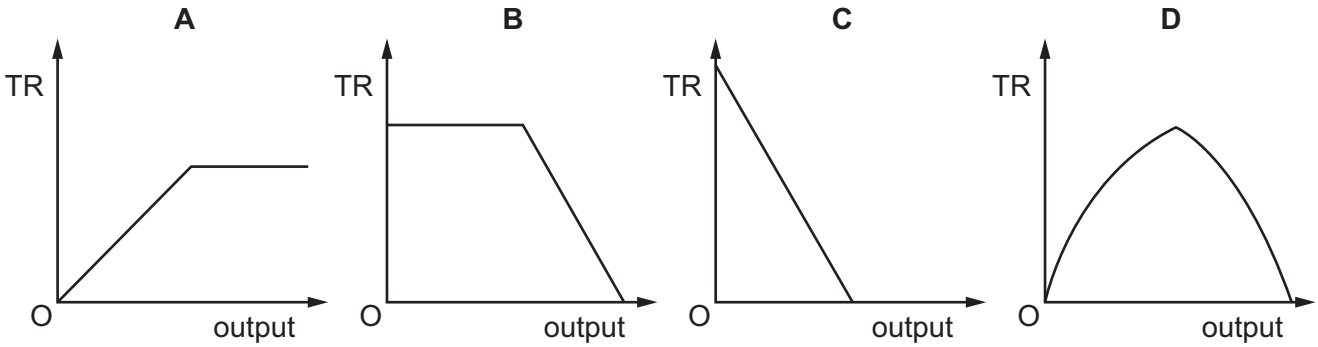
Option D: The idea of persuasion. This option closely aligns with nudge theory. Nudge theory involves using gentle persuasion techniques to guide individuals toward particular behaviors or decisions without restricting their freedom of choice.

The correct answer is D: The idea of persuasion. Nudge theory is fundamentally about influencing and persuading individuals to make certain choices through subtle cues and design changes in their environment.

13 The diagram shows a firm's marginal revenue curve.



Which total revenue curve corresponds to this firm's marginal revenue curve?



To determine which total revenue curve corresponds to the given marginal revenue curve, we need to understand the relationship between marginal revenue (MR) and total revenue (TR).
Marginal Revenue (MR): It represents the change in total revenue from selling one more unit of output. If MR is zero, total revenue is constant. If MR is positive, total revenue is increasing. If MR is negative, total revenue is decreasing.
Analysis of the Given MR Curve:
The MR curve starts at a positive value and decreases, eventually becoming zero and then negative.
Implications for Total Revenue:
When MR is positive, TR is increasing.
When MR is zero, TR is at its maximum.
When MR is negative, TR is decreasing.
Matching with Options:
Option A: Shows TR increasing and then becoming constant, which does not match the MR curve since MR never becomes negative.
Option B: Shows TR increasing and then decreasing, which aligns with the MR curve: positive MR when TR increases and negative MR when TR decreases.
Option C: Shows a constant decrease in TR, which implies a consistently negative MR, not matching the given MR curve.
Option D: Shows a TR curve that increases and then decreases, matching the MR curve behavior.

Considering the above analysis, Option D is the correct choice because it shows total revenue increasing, reaching a maximum, and then decreasing, which corresponds to the behavior of the given marginal revenue curve.

14 To control the cost of living governments have sometimes imposed a maximum price on certain goods that is below the free market price.

What is often an undesirable side effect of such policies?

A accelerating general inflation

B an increase in profits above normal profits

C an increase in the stocks of unsold goods held by firms

D shortages of the good

Answer:
When governments impose a maximum price on certain goods that is below the free market price, this is known as a price ceiling. Let's analyze each potential side effect:

Option A: Accelerating general inflation. A price ceiling generally keeps prices lower than they would be in a free market, which would not directly lead to general inflation. Inflation is more related to an overall increase in prices across the economy.

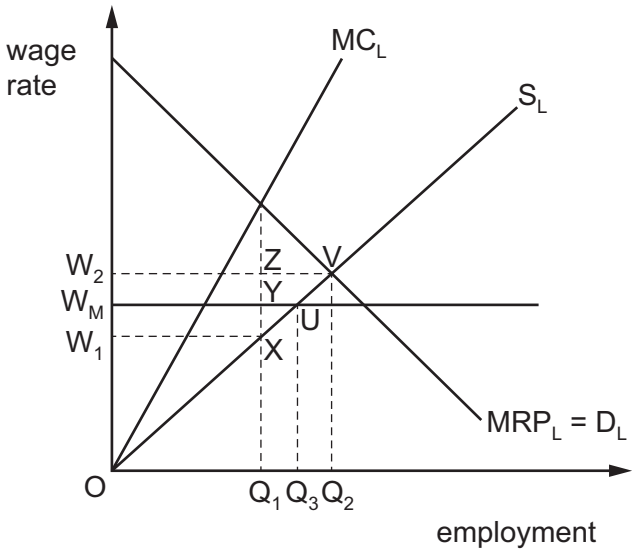
Option B: An increase in profits above normal profits. A price ceiling typically reduces the price that sellers can charge, which would generally decrease profits, rather than increase them.

Option C: An increase in the stocks of unsold goods held by firms. This would be more typical of a price floor, where prices are set above the equilibrium, leading to excess supply. A price ceiling, on the other hand, usually leads to shortages, not surpluses.

Option D: Shortages of the good. This is a common side effect of price ceilings. When the price is set below the equilibrium, the quantity demanded exceeds the quantity supplied, leading to a shortage of the good.

The correct answer is D: Shortages of the good. A maximum price below the market equilibrium typically results in higher demand and lower supply, causing shortages.

15 The diagram shows the effect of the introduction of a national minimum wage, W_M, in an occupation where workers are employed by a profit-maximising monopsonist.



What happened to total wages received by the workers in the occupation?

A decrease from OW_2VQ_2 to OW_MUQ_3

B decrease from OW_2ZQ_1 to OW_MUQ_3

C increase from OW_1XQ_1 to OW_MYQ_1

D increase from OW_1XQ_1 to OW_MUQ_3

The introduction of a national minimum wage W_M affects the total wages received by workers in the occupation.

Initially, the monopsonist employs Q_1 workers at a wage rate W_1, resulting in total wages represented by the area OW_1XQ_1.

With the minimum wage W_M set, the firm employs Q_3 workers at the wage rate W_M, resulting in total wages represented by the area OW_MUQ_3.

Comparing these two areas:

The initial total wages are OW_1XQ_1.
The new total wages are OW_MUQ_3.
The correct option that describes this change is**:**

D increase from OW_1XQ_1 to OW_MUQ_3.

16 What is defined as ‘the payment made to a factor of production over and above that necessary to keep the factor in its present use’?

A economic rent

B normal profit

C opportunity cost

D transfer earnings

Answer:
The term you're asking about is related to payments made to factors of production, such as labor or capital. Let's examine each option:

Option A: Economic rent. Economic rent is the payment made to a factor of production over and above that which is necessary to keep it in its current use. It represents the excess payment due to the scarcity or unique advantages of the factor.

Option B: Normal profit. Normal profit is the minimum level of profit necessary to keep a firm in operation in the long run. It is not considered an excess payment above what is necessary.

Option C: Opportunity cost. Opportunity cost refers to the value of the next best alternative foregone when a choice is made. It is not a payment made to a factor of production, but rather a concept used to evaluate choices.

Option D: Transfer earnings. Transfer earnings are the minimum payment required to keep a factor in its current use. They are not excess payments, but rather the baseline necessary to retain the factor.

The correct answer is A: Economic rent. This term describes the payment made to a factor of production that exceeds what is necessary to keep it in its current use.

17 The table shows the values of the Gini coefficient for some countries in 2007.

	Gini coefficient
Namibia	74.3
Zambia	50.4
France	32.7
Denmark	24.7

Using the information above, which statement is correct?

A Income is distributed more equally in Denmark than France.

B Income is distributed more equally in Namibia than Zambia.

C Income per capita is higher in Zambia than Namibia.

D There are proportionally more people below the poverty line in Zambia than France.

Answer:
The Gini coefficient is a measure of income inequality within a country. A Gini coefficient of 0 represents perfect equality, while a coefficient of 100 indicates perfect inequality. Let's evaluate each statement using this information:

Option A: Income is distributed more equally in Denmark than France. Denmark has a lower Gini coefficient (24.7) compared to France (32.7), indicating that income is indeed distributed more equally in Denmark.

Option B: Income is distributed more equally in Namibia than Zambia. Namibia has a much higher Gini coefficient (74.3) compared to Zambia (50.4), indicating that income is distributed less equally in Namibia.

Option C: Income per capita is higher in Zambia than Namibia. The Gini coefficient does not provide information about income per capita; it only measures inequality. Therefore, this statement cannot be determined from the given data.

Option D: There are proportionally more people below the poverty line in Zambia than France. The Gini coefficient does not directly measure poverty levels, so this statement cannot be conclusively determined from the data provided.

The correct answer is A: Income is distributed more equally in Denmark than France. The lower Gini coefficient for Denmark indicates a more equal distribution of income compared to France.

18 The table gives details of the carrying capacity and number of British licensed registered ships over 100 tons between 2010 and 2014.

year	2010	2011	2012	2013	2014
carrying capacity (million tons)	17.3	16.6	17.7	17.6	15.2
number of ships	712	664	643	577	500

What can be concluded about British shipping between 2010 and 2014?

A The average size of British registered ships increased.

B The number of voyages made by British registered ships fell.

C The productivity of British registered ships peaked in 2012.

D The capacity of the British registered fleet fell continuously.

Answer:
To evaluate each statement, let's analyze the data provided in the table:

Option A: The average size of British registered ships increased. To check this, we can compare the carrying capacity to the number of ships over the years. The average size of a ship can be determined by dividing the carrying capacity by the number of ships. Although the number of ships decreased from 712 in 2010 to 500 in 2014, the carrying capacity did not decrease proportionally, suggesting that the average size of ships likely increased.

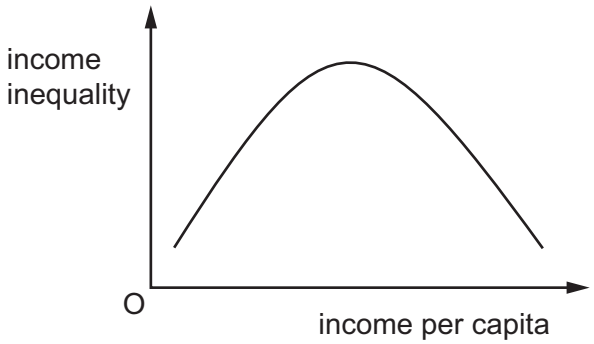
Option B: The number of voyages made by British registered ships fell. The table does not provide information about the number of voyages, so this cannot be directly concluded from the data given.

Option C: The productivity of British registered ships peaked in 2012. Productivity could be related to carrying capacity per ship. In 2012, the carrying capacity was 17.7 million tons with 643 ships, which is higher than other years when considering the number of ships. This indicates a potential peak in productivity.

Option D: The capacity of the British registered fleet fell continuously. The carrying capacity decreased from 17.3 million tons in 2010 to 15.2 million tons in 2014, but it did not fall continuously. There was an increase from 16.6 million tons in 2011 to 17.7 million tons in 2012.

The correct answer is A: The average size of British registered ships increased. The data suggests that even though the number of ships decreased, the carrying capacity did not decrease at the same rate, implying an increase in the average size of the ships.

19 Which curve is shown in the diagram?



A Kuznets curve

B Laffer curve

C Lorenz curve

D Phillips curve

The curve shown in the diagram is the Kuznets curve. This curve illustrates the relationship between income per capita and income inequality, suggesting that as an economy develops, income inequality first increases and then decreases.

Therefore, the correct answer is:
A Kuznets curve

20 Other things remaining equal, what will reduce the level of national income in an economy?

A a fall in planned savings

B a fall in the marginal propensity to import

C an increase in the average propensity to consume

D a reduction in the level of defence expenditure

Answer:
To determine which option will reduce the level of national income, let's analyze each choice:

Option A: A fall in planned savings. When savings decrease, more money is available for consumption or investment, which could potentially increase national income, rather than reduce it.

Option B: A fall in the marginal propensity to import. This means that for every additional unit of income, less is spent on imports. This would likely increase national income because more money stays within the domestic economy, boosting local production and consumption.

Option C: An increase in the average propensity to consume. This means that a higher proportion of income is spent on consumption. Consuming more generally stimulates the economy, potentially increasing national income.

Option D: A reduction in the level of defense expenditure. This represents a decrease in government spending, which is a component of national income. Reducing government expenditure can lead to a direct decrease in national income, assuming other factors remain constant.

The correct answer is D: A reduction in the level of defense expenditure. Reducing government spending, such as defense expenditure, directly decreases one of the components of national income, leading to a potential reduction in the overall level of national income in the economy.

21 An increase in government expenditure is financed by borrowing from the central bank.

Other things being equal, what will be the effect on the money supply?

A It will decrease.

B It will increase by an amount equal to the increase in government expenditure.

C It will increase by more than the increase in government expenditure.

D It will remain unchanged.

Answer:
When the government finances an increase in expenditure by borrowing from the central bank, it creates new money, which affects the money supply. Let's evaluate each option:

Option A: It will decrease. This is incorrect because borrowing from the central bank involves creating new money, which increases the money supply.

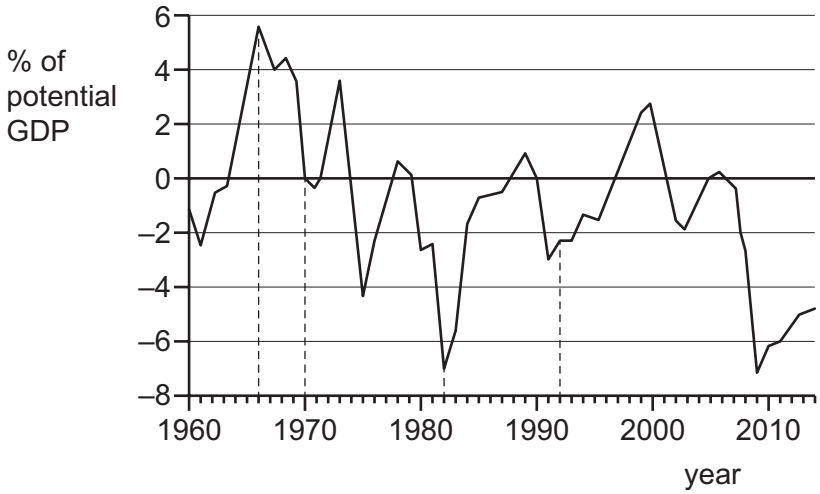
Option B: It will increase by an amount equal to the increase in government expenditure. This option assumes a direct one-to-one relationship between the borrowing and the increase in money supply. While this might be the immediate effect, the actual increase can be more due to the multiplier effect.

Option C: It will increase by more than the increase in government expenditure. When the central bank creates new money for government borrowing, it can lead to an increase in the overall money supply through the banking system's fractional reserve mechanism. The new money can be deposited in banks, which can lend out a portion of it, further increasing the money supply through the money multiplier effect.

Option D: It will remain unchanged. This is incorrect because the creation of new money inherently increases the money supply.

The correct answer is C: It will increase by more than the increase in government expenditure. The initial creation of money by borrowing from the central bank can lead to a larger increase in the money supply due to the banking system's ability to lend out deposits and create additional money through the money multiplier process.

22 The diagram shows the output gap as a percentage of potential GDP for the US from 1960 to 2014.



In which year was the output gap most likely to result in inflation?

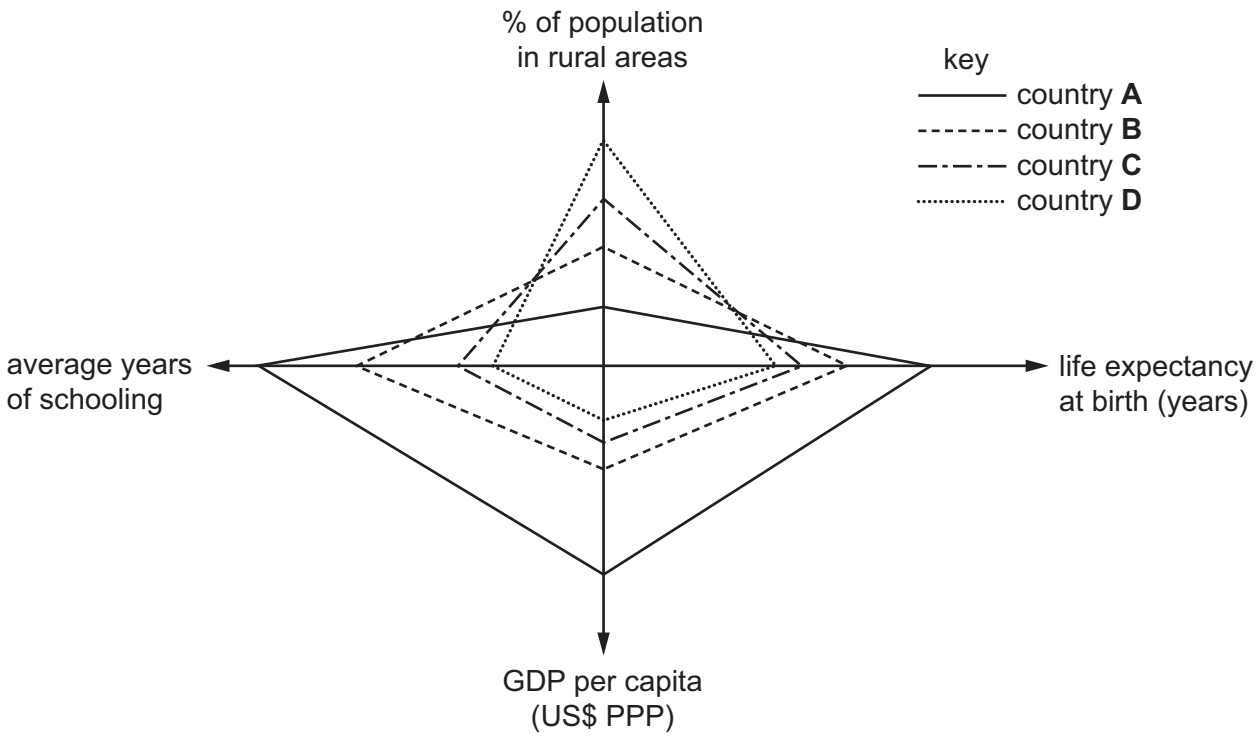
A 1966 **B** 1970 **C** 1982 **D** 1992

The output gap is the difference between actual GDP and potential GDP, expressed as a percentage of potential GDP. A positive output gap occurs when actual GDP exceeds potential GDP, indicating an economy operating above its full capacity, which can lead to inflationary pressures.
Looking at the graph, we need to identify the year where the output gap is most positive among the given options:
1966 (A): The output gap is positive and relatively high.
1970 (B): The output gap is positive but lower than in 1966.
1982 ©: The output gap is negative, indicating economic slack.
1992 (D): The output gap is negative, indicating economic slack.
Among the given years, 1966 has the most positive output gap, suggesting that the economy was operating above its potential capacity, making it the most likely to result in inflation.

Answer: A) 1966

23 The diagram shows data on various aspects of four countries.

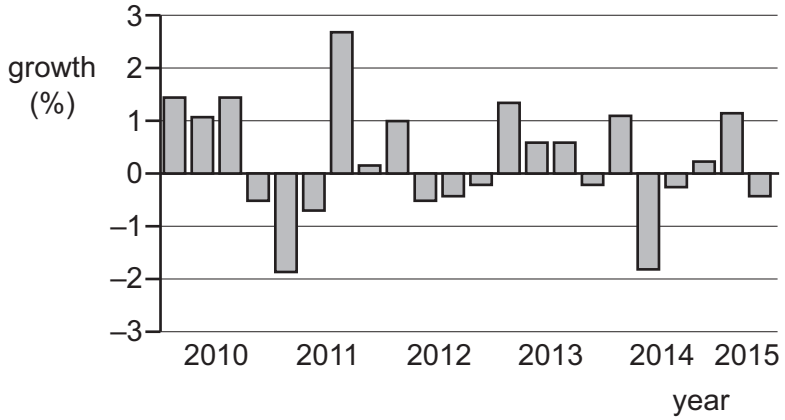
Which country is likely to be most developed?



To determine which country is likely to be the most developed, we need to consider the indicators shown in the diagram:
% of population in rural areas: A lower percentage often indicates more urbanization, which is typically associated with more developed countries.
Average years of schooling: Higher average years of schooling are generally associated with more developed countries.
Life expectancy at birth: Higher life expectancy is usually indicative of a more developed country.
GDP per capita (US$ PPP): Higher GDP per capita suggests higher economic development and standard of living.
By analyzing the diagram, we need to identify the country that performs best across these indicators:
Country A: Shows relatively high performance in GDP per capita, life expectancy, and average years of schooling, with a lower percentage of rural population.
Country B, C, and D: Do not perform as consistently high across all indicators compared to Country A.

Therefore, Country A is likely to be the most developed based on the indicators provided in the diagram.

24 The diagram shows quarterly changes in Japan's GDP from 2010 to 2015.



How many recessions occurred in Japan during this period?

A 2 **B** 3 **C** 5 **D** 10

A recession is typically defined as two consecutive quarters of negative GDP growth. Let's examine the diagram to identify such periods:

2011: There are two consecutive quarters of negative growth around 2011.
2012: There are two consecutive quarters of negative growth around 2012.
2014: There are two consecutive quarters of negative growth around 2014.

Based on these observations, there are 3 periods of recession during the specified timeframe.

Therefore, the correct answer is:
B 3

25 Steps in calculating the working-age population are shown.

- .....1..... + ...2..... = labour force
- labour force + ...3..... = working-age population

Which row has the correct terms to complete gaps 1, 2 and 3?

	1	2	3
A	employed	underemployed	unemployed
B	employed	unemployed	not in labour force
C	not in labour force	underemployed	employed
D	unemployed	not in labour force	underemployed

Answer:
To determine the correct terms to complete the gaps, let's understand the definitions:

The labour force consists of both the employed and unemployed individuals. Therefore, to calculate the labour force, you add the employed to the unemployed.

The working-age population includes everyone in the labour force plus those who are not participating in the labour force, often referred to as "not in the labour force."

Let's evaluate each option:
Option A:
Employed
Underemployed
Unemployed
This option is incorrect because the combination of "employed" and "underemployed" does not represent the total labour force.

Option B:
Employed
Unemployed
Not in labour force
This option is correct. The labour force is the sum of employed and unemployed individuals. The working-age population is the sum of the labour force and those not in the labour force.

Option C:
Not in labour force
Underemployed
Employed
This option is incorrect because the "not in labour force" should not be added to calculate the labour force.

Option D:
Unemployed
Not in labour force
Underemployed
This option is incorrect because the "not in labour force" should not be part of the labour force calculation.

The correct answer is B:
Employed
Unemployed
Not in labour force.

This correctly represents the steps needed to calculate the labour force and the working-age population.

26 The graphs show consumer prices and unemployment for Ireland between 2002 and 2007.

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What can be concluded from the graphs?

A Between 2003 and 2004, unemployment and prices moved in the same direction.

B Prices were at their lowest in 2004.

C Prices rose continuously over the period.

D The number of unemployed workers fell over the period.

27 Which combination of policy measures is most likely to reduce unemployment?

A lowering both the exchange rate and domestic interest rates

B lowering the exchange rate and increasing direct taxation

C raising both the exchange rate and domestic interest rates

D raising the exchange rate and increasing direct taxation

Answer:
To determine which combination of policy measures is most likely to reduce unemployment, let's analyze the effects of each policy:

Option A: Lowering both the exchange rate and domestic interest rates.

Lowering the exchange rate makes exports cheaper and more competitive internationally, potentially increasing demand for domestic goods and services, which can lead to higher employment.
Lowering domestic interest rates reduces the cost of borrowing for consumers and businesses, which can stimulate investment and spending, further boosting employment.

Option B: Lowering the exchange rate and increasing direct taxation.

While lowering the exchange rate can help make exports more competitive, increasing direct taxation may reduce disposable income for consumers and businesses, potentially offsetting any positive effects on employment.

Option C: Raising both the exchange rate and domestic interest rates.

Raising the exchange rate makes exports more expensive and less competitive, potentially reducing demand for domestic goods and services, which can lead to higher unemployment.
Raising domestic interest rates increases the cost of borrowing, which can reduce investment and spending, potentially leading to higher unemployment.

Option D: Raising the exchange rate and increasing direct taxation.

Both measures can negatively impact employment. Raising the exchange rate can reduce export competitiveness, and increasing direct taxation can reduce disposable income, both potentially leading to higher unemployment.

The correct answer is A: Lowering both the exchange rate and domestic interest rates. This combination is most likely to reduce unemployment by making exports more competitive and encouraging investment and spending through lower borrowing costs.

28 A government responds to cyclical fluctuations in output by keeping tax rates and benefit rates unchanged.

What is the government seeking to achieve by adopting this fiscal policy?

A to allow automatic stabilisers to work

B to keep output at the full employment level

C to maintain a constant balanced budget

D to ensure that its budget is in surplus over the trade cycle

Answer:
When a government decides to keep tax rates and benefit rates unchanged in response to cyclical fluctuations in output, it is generally allowing the economy's built-in mechanisms to adjust automatically without intervention. Let's consider each option:

Option A: To allow automatic stabilisers to work.

Automatic stabilisers are fiscal policies that automatically change with economic conditions without additional government action. Examples include progressive tax systems and unemployment benefits. When the economy slows, tax revenues decrease, and benefit payments increase, which helps to support demand. Conversely, during a boom, tax revenues increase, and benefit payments decrease, cooling off the economy. Keeping tax and benefit rates unchanged allows these stabilisers to function effectively.

Option B: To keep output at the full employment level.

While automatic stabilisers can help smooth out fluctuations, they do not guarantee that output will remain at the full employment level, as they are not designed to precisely target output.

Option C: To maintain a constant balanced budget.

Automatic stabilisers typically cause budget deficits during downturns and surpluses during upturns, so keeping rates unchanged does not necessarily result in a constant balanced budget.

Option D: To ensure that its budget is in surplus over the trade cycle.

The purpose of automatic stabilisers is not specifically to ensure a surplus; rather, they aim to moderate the fluctuations in the economy.

The correct answer is A: To allow automatic stabilisers to work. By keeping tax rates and benefit rates unchanged, the government is letting the automatic stabilisers respond to changes in economic conditions, helping to smooth out the effects of cyclical fluctuations.

29 Manufacturing output in China fell to the lowest for 15 months in June 2015. The government wanted to stimulate the economy.

What would be most likely to help the economy recover?

A a decrease in government spending

B a decrease in unemployment

C an increase in income tax

D an increase in interest rates

Answer:
To stimulate an economy when manufacturing output falls, the government would typically consider measures that boost economic activity and demand. Let's evaluate each option:

Option A: A decrease in government spending.

Decreasing government spending would likely have a contractionary effect on the economy, reducing overall demand and potentially further slowing economic recovery. This is not a measure typically used to stimulate an economy.

Option B: A decrease in unemployment.

Decreasing unemployment would increase household income and spending, leading to higher demand for goods and services, which can help stimulate the economy. However, reducing unemployment directly is not a measure itself; it is often a result of other stimulative policies.

Option C: An increase in income tax.

Increasing income tax would reduce disposable income for consumers, potentially decreasing demand for goods and services and further slowing the economy. This is not typically used to stimulate economic recovery.

Option D: An increase in interest rates.

Increasing interest rates would make borrowing more expensive for consumers and businesses, likely reducing spending and investment. This would have a contractionary effect, not a stimulative one.

The correct answer, considering what would help the economy recover, is B: A decrease in unemployment. While it is often the outcome of stimulative measures rather than a direct action, reducing unemployment increases consumer spending power, which can help drive economic recovery.

30 The economy of a country is simultaneously experiencing a balance of payments deficit, a budget deficit, demand-pull inflation and unemployment. The government decides to cut personal income taxes.

What is most likely to be its main macroeconomic objective?

A to improve the balance of payments position

B to reduce the budget deficit

C to reduce the level of unemployment

D to reduce the rate of inflation

Answer:
When a government decides to cut personal income taxes, it generally aims to boost consumer spending and stimulate economic activity. Let's evaluate how this action aligns with each macroeconomic objective:

Option A: To improve the balance of payments position.

Cutting personal income taxes is unlikely to directly improve the balance of payments. In fact, increased consumer spending could lead to higher imports, potentially worsening the balance of payments position.

Option B: To reduce the budget deficit.

Cutting personal income taxes would likely reduce government revenue, potentially increasing the budget deficit rather than reducing it.

Option C: To reduce the level of unemployment.

By cutting personal income taxes, individuals have more disposable income, which can lead to increased consumer spending. This increase in demand can encourage businesses to hire more workers, thus reducing unemployment.

Option D: To reduce the rate of inflation.

Demand-pull inflation could potentially increase with a tax cut, as higher disposable income leads to increased spending. Therefore, cutting taxes is not typically used to reduce the rate of inflation.

The most likely macroeconomic objective for cutting personal income taxes is C: To reduce the level of unemployment. By stimulating consumer spending, the government aims to boost demand, leading to job creation and lower unemployment.