 'Multiple choice' - Improving your knowledge of the key concepts

- The Aim:** To improve your knowledge of economic concepts that are commonly examined in multiple choice questions.
- Instructions:** Read the notes in the 'Content' section before attempting the exercises. Each 'exercise' allows you to apply the information to MC questions.

Exercise 1: **Content** ✎ Read this text before attempting the next exercise.

Public goods have two important characteristics. Firstly, they are non-rival. This means that if one person consumes the good, another is not prevented from also using the good. Secondly, they are non-excludable. This means that no one is excluded from using the good. People who do not wish to pay, for example, are nevertheless able to use a public good. National defence is a public good. These properties mean that public goods are susceptible to free riding, which is when people use public goods without paying their fair share of the upkeep. This happens to the atmosphere, for example. Companies pollute the air, but don't pay for the damage this does to society.

- Q 1A:** Select the alternative that best answers the question.
Which of the following best describes public goods?
- a. Non-excludable and non-rival
 - b. Non-excludable and rival
 - c. Excludable and non-rival
 - d. Excludable and rival

- Q 1B:** Select the alternative that best answers the question.
Which statement best describes free riding?
- a. It occurs when people use public transport without buying a ticket
 - b. It occurs when people steal goods and happens to private goods
 - c. It occurs when people use goods but don't pay for their upkeep and happens mostly to public goods

Exercise 2: **Content** ✎ Read this text before attempting the next exercise.

Private goods are the opposite of public goods. They are rival. When one person consumes the good, the availability of it for others to consume is diminished. They are also excludable. Those who are not willing or able to pay are prevented from consuming the good. For example, if someone is unwilling to spend money, they are not able to buy a pair of shoes from a store. If they do buy them, stocks of the product fall and someone else is consequently prevented from purchasing the shoes.

- Q 2:** Select the alternative that best answers the question.
Which of the following best describes private goods?
- a. Non-excludable and non-rival
 - b. Non-excludable and rival
 - c. Excludable and non-rival
 - d. Excludable and rival

Exercise 3: **Content** ✎ Read this text before attempting the next exercise.

Environmental problems are caused by a range of issues, so policy responses must be targeted at specific problems.

One of the best ways to protect the environment would be to reduce production, but the government is not willing to sacrifice its primary objective of economic growth. Therefore it must find ways to promote more environmentally-friendly production.

- Q 3:** Select the alternative that best answers the question.
Which of the following policies will likely improve environmental management?
- a. Decreased use of renewable resources
 - b. Increased subsidies for energy producers
 - c. A tax on pollution
 - d. Subsidies for increased foreign investment into Australia

Exercise 4: **Content** ✎ Read this text before attempting the next exercise.

Market failure occurs when the price mechanism does not reflect the social costs and benefits of production. The price generally only reflects private costs and benefits - the costs of production to the producer (labour, raw materials, etc.) and the benefits of the product to the buyer. It does not reflect negative externalities, which are costs incurred by third parties.

The price of a pair of shoes, for example, does not reflect the damage done to society through air pollution in the production process.

Social externalities are benefits to third parties for which they don't pay. This is much rarer and not a critical social problem. An example is one person's house renovations boosting house prices for the whole street.

- Q 4A:** Select the alternative that best answers the question.
Which alternative best describes externalities?
- a. Pollution
 - b. Social costs of production
 - c. Free riding on public goods
 - d. Costs and benefits of economic activity to society or third parties

- Q 4B:** Select the alternative that best answers the question.
What do government policies designed to overcome market failure do?
- a. Cause the price of goods to fall
 - b. Force society to bear private costs of production
 - c. Commit the price mechanism to reflect social as well as private costs of production
 - d. Increase income taxes to pay for environmental projects

 'Multiple choice' - Recognising the tactics used by examiners

The Aim: To alert you to the common tactics and tricks used by examiners.
Instructions: Study the 'Creative Economics Tips' before attempting the exercises. Each exercise will give you skills you can apply to multiple choice questions.

Exercise 1: Creative Economics Tip ✂ Read the following 'tip' before attempting the next exercise.

Tip: When asking about **market failure**, examiners try to catch students out by listing incorrect alternatives from related syllabus dot points, such as free riding or the under-provision of public goods, which students are tempted to choose because they recognise them. Remember, market failure occurs when the **price mechanism fails to take into account the social costs and benefits** of production.

Q 1: Complete this paragraph. ✂ Cover up this tip before attempting the exercise. The key words are - social, price, public, pollution, free riding, production

Market failure is the term used to refer to the situation where the PRICE mechanism fails to take into account the SOCIAL costs and benefits of PRODUCTION. It causes environmental problems when the prices of products don't reflect costs incurred by all of society from production, such as POLLUTION.

FREE RIDING is a related but distinct concept. It is when someone uses a PUBLIC good without paying their fair share of the upkeep, such as firms polluting waterways without bearing costs of cleaning them.

Exercise 2: Creative Economics Tip ✂ Read the following 'tip' before attempting the next exercise.

Tip: Government **policies to improve environmental management** often relate to reducing the demand for **certain resources**, such as fossil fuels. Remember that this can include both direct measures, such as increasing the price of the resource through taxation, and indirect measures, such as subsidising the development of a direct substitute.

Q 1: Applying the tip, explain why 'a' is the correct answer.

Which of the following measures will help environmental management?

- Subsidising the development of renewable energy
- Subsidising coal mining
- Implementing a sales tax on solar panels
- Relaxing environmental regulations

Using the **elimination method**: b --> increase pollution; c --> increase the price of a renewable energy source; d --> more problems would occur.



The Aim: To apply the skills you have learned as if you were the examiner.

Exercise 1: Constructing questions.

Q 1: Write four options for the following question. Make 'a' the correct answer. Which of the following is a public good?

- a. **All of the following**
- b. **When someone uses a public good, it doesn't stop others from using the good.**
- c. **Examples include fresh air , national defence and lighthouses.**
- d. **A public good is non-excludable**

Q 2: Write four options for the following question. Make 'd' the correct answer. Which of the following is not a private good?

- a. **An iPhone**
- b. **A car**
- c. **A patent**
- d. **The sea**

Q 3: Write four options for the following question. Make 'b' the correct answer. Which of the following is an example of a negative externality?

- a. **rain outdoors**
- b. **conflict with a foreign force**
- c. **a car accident**
- d. **a deficit in trade**

Exercise 2: Constructing questions.

Q 1: Complete this question for which 'a' is the correct answer.

When there is a/an **increase** in economic growth:

- a. Negative externalities are likely to rise
- b. Environmental outcomes are likely to improve
- c. The private sector is likely to provide public goods
- d. Market failure is less likely



The Aim: To teach you how to convert paragraphs into plans.

Instructions: Study the content and then create a plan.

Exercise 1: Content

The government can encourage 'greener' production by providing compensation to producers. Producers are often reluctant to change production methods because it is costly.

Financial compensation for these extra costs will make these kinds of changes more likely. Moreover, this has long-term benefits, as once the new system of production is in place, it is likely to become more efficient and cost-effective.

Market-based pricing is another method to reduce abuse of natural resources. This is essentially charging a higher price for the use of the resource that better reflects its market value, to discourage overuse.

The government subsidises some resources, like water and electricity, because they are considered essential. Consumers pay a very low price, far below market value. This encourages overuse, particularly by large-scale producers. If water, for example, was more expensive, people would be less likely to waste it. Of course, it would be difficult for governments to begin charging market price for these resources, especially to private consumers. However, it could be implemented above a certain threshold of 'fair' use, especially for very large consumers,

Subsidies can be used to encourage 'greener' production. Firstly, they may be used with the same kind of logic as compensation. The government could subsidise some or all of the costs of producing in an environmentally-friendly way, allowing the firm to produce goods more cheaply in this way.

Secondly, the government can subsidise the research and development of new, environmentally-friendly technologies. Without some kind of support, this kind of work is often very expensive, and even if scientific breakthroughs are made, it can be difficult to produce these products for widespread use.

The government subsidy causes the supply curve to move to the right, meaning that this kind of research can be carried out at a cheaper price, and new products can be developed in greater numbers, which can also lead to economies of scale benefits.

Taxes represent a different approach to environmental management. Rather than helping the market to adopt the government's solutions, at the taxpayer's expense, they aim to force market innovation.

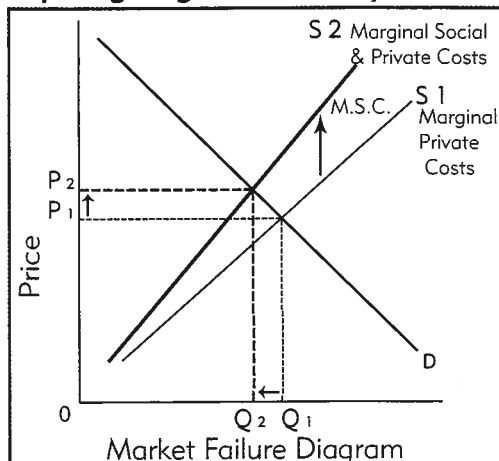
Taxes on environmentally-harmful behaviour, such as high-polluting production, seek to make this unprofitable. It makes production more expensive, so supply of goods produced in a damaging way falls.

If the demand for the product is price elastic, these increases in the costs of production will reduce total revenue. Environmentally-harmful production thus becomes unprofitable for firms, forcing them to find new, 'greener' ways to make products.



The Aim: To teach you how to draw and use diagrams to explain economic arguments.
Instructions: After completing these exercises, memorise the paragraphs and diagram.

Exercise 1: Preparing diagrams for essays.



The Market Failure diagram demonstrates why market failure occurs. The curve S1 represents only the marginal private costs of production, without taking into account costs to society. At price P1, quantity Q1 is consumed.

However, when social costs are also considered, the supply curve shifts to S2, causing the price to rise to P2. This means that the true equilibrium level of consumption should be Q2. The market price mechanism does not factor in all the costs of production, leading to over-consumption.

Q 1: Draw the Market Failure diagram and fill in the missing words to complete the explanation.

The words are - social, Q1, over-consumption, private, equilibrium.

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Q 1: The diagram above can be used in the essay - **Discuss the policies that can be used to assist environmental management.**

Write a paragraph to answer this question, incorporating this diagram

* Cover up the diagram and draw the diagram from memory.



The Aim: To prepare introductions and conclusions for use in essays.
Instructions: After completing these exercises, memorise the paragraphs.

Exercise 1: Preparing an introduction.

Q 1: Fill in the missing words to complete an introduction for the essay - Analyse the policies that can be used to assist environmental management.
The words are - ozone, growth, objectives, positive, warming.
When analysing tactics for environmental management, it is necessary to examine both the positive and negative aspects of each policy. Policies include taxes, subsidies, market-based pricing and an emissions trading scheme, amongst others. The onset of global warming and ozone hole depletion has ignited debate about what measures need to be taken to address environmental problems, with a potential conflict posed by the pursuit of economic objectives. Balancing growth of strong economic growth and environmental sustainability is one of the most difficult but most important policy tasks for the government.

Exercise 2: Preparing a conclusion.

Q 1: Fill in the missing words to complete an conclusion for the essay - Discuss the policies that can be used to assist environmental management.
The words are - management, tax, depletion, growth, externalities, development, preservation, market-based .
The issue of environmental preservation is very complex and policies need to be carefully considered. With issues ranging from negative externalities to resource depletion, as well as pollution and development of the natural environment, a variety of polices are needed. Each policy option has benefits and detriments, and different policies are appropriate for different environmental problems. A tax on environmentally-harmful behaviour is an effective policy that is widely applicable, but other approaches like market-based pricing, subsidies, and property rights also need to be considered as part of the mix. A careful balance needs to be maintained between economic growth and environmental goals to achieve ecologically-sustainable management.