

1.12 Externalities



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1.12 EXTERNALITIES: STUDENT LEARNING ACTIVITY

Answer the questions that follow.

1. DEFINITIONS

Define the following terms:

[10 marks]

- Factors of production
- Allocative efficiency
- Marginal cost
- Resources
- Equilibrium
- Producer surplus
- Free market
- Surplus
- Shortage
- Benefit
- Marginal benefit
- Law of diminishing marginal utility
- Utility
- Demand curve
- Marginal private benefit
- Spillover effect
- External benefit
- Positive externalities
- Externalities
- Marginal external benefit
- Marginal social benefit
- Private costs
- Quantity supplied
- Industry
- Total cost
- Diminishing marginal returns to a variable factor
- Short run
- Profit
- Social optimum price
- Negative externalities
- External cost
- Marginal private cost
- Marginal external cost
- Marginal social costs
- Social optimum level of output
- Welfare loss
- Private benefit
- Demerit goods
- Market failure
- Real income
- Consumer welfare
- Opportunity cost
- Tradable permits
- Merit good
- Misallocation of resources
- Positive externalities of consumption
- Negative externalities of consumption
- Positive externalities of production
- Negative externalities of production
- Excise tax
- Subsidy

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2. SHORT-ANSWER QUESTIONS

1. Explain allocative efficiency using the concepts of producer and consumer surpluses, marginal costs and benefits. Use a diagram. **[6 marks]**
2. Explain market failure. **[6 marks]**
3. Outline what an externality is. **[2 marks]**
4. Outline how allocative efficiency helps to explain the relationship between externalities and market failure by using the concept. **[6 marks]**
5. Distinguish between marginal private and marginal social benefit. **[4 marks]**
6. Distinguish between marginal private and marginal social cost. **[4 marks]**
7. Use examples to distinguish between: **[8 marks]**
 - i. Negative externalities of production
 - ii. Positive externalities of production
 - iii. Negative externalities of consumption
 - iv. Positive externalities of consumption
8. Use diagrams to distinguish between: **[12 marks]**
 - i. Negative externalities of production
 - ii. Positive externalities of production
 - iii. Negative externalities of consumption
 - iv. Positive externalities of consumption
9. Using diagrams, show and/or explain: **[12 marks]**
 - i. That marginal private costs and marginal social costs differ if there is a negative externality of production.
 - ii. How the equilibrium market quantity differs from the optimal quantity that maximises social welfare.
 - iii. The allocation of resources achieved in a competitive free market when there is a negative externality of production.
 - iv. The welfare loss associated with a negative externality of production.
10. Identify two different examples of a negative externality of production and outline the different methods that could be used to correct it. **[6 marks]**

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11. In the case of polluting emissions, use diagrams to show and/or explain how a negative externality of production can be corrected by a government using each of the following methods to correct for market failure: **[15 marks]**
- Indirect taxes
 - Tradeable permits
 - Regulation/legislation
12. Outline the advantages and disadvantages of the above three methods (Question 11) used by governments to intervene in the market and correct for market failure. **[6 marks]**
13. Explain the meaning of 'internalising an externality'? **[4 marks]**
14. Explain why economists prefer market-based solutions to correct for negative externalities of production. **[8 marks]**
15. Evaluate, using diagrams, the use of policy responses, including market-based policies (taxation and tradeable permits) and government regulations, to the problem of negative externalities of production. **[20 marks]**
16. Using diagrams, show and/or explain: **[12 marks]**
- That marginal private costs and marginal social costs differ if there is a negative externality of consumption.
 - How the equilibrium market quantity differs from the optimal quantity that maximises social welfare.
 - The allocation of resources achieved in a competitive free market when there is a negative externality of consumption.
 - The welfare loss associated with a negative externality of consumption.
17. Identify two different examples of a negative externality of consumption and outline the different methods that could be used to correct it. **[6 marks]**
18. In the case of polluting emissions, use diagrams to show and/or explain how a negative externality of consumption can be corrected by a government using each of the following methods to correct for market failure: **[15 marks]**
- Indirect taxes
 - Advertising
 - Regulation/legislation
19. Outline the advantages and disadvantages of the above three methods (Question 18) used by governments to intervene in the market and correct for a market failure caused by negative externalities of consumption. **[6 marks]**
20. Use examples to distinguish between merit and demerit goods. **[4 marks]**

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21. Evaluate the use of market-based policies to correct for a negative externality of consumption. **[20 marks]**
22. Using diagrams, show and/or explain: **[12 marks]**
- That marginal private costs and marginal social costs differ if there is a positive externality of production.
 - How the equilibrium market quantity differs from the optimal quantity that maximises social welfare.
 - The allocation of resources achieved in a competitive free market when there is a positive externality of production.
 - The welfare loss associated with a positive externality of production.
23. Identify two different examples of a positive externality of production and outline the different methods that could be used to correct it. **[6 marks]**
24. Using diagrams, show and/or explain: **[12 marks]**
- That marginal private costs and marginal social costs differ if there is a positive externality of consumption.
 - How the equilibrium market quantity differs from the optimal quantity that maximises social welfare.
 - The allocation of resources achieved in a competitive free market when there is a positive externality of consumption.
 - The welfare loss associated with a positive externality of consumption.
25. Identify two different examples of a positive externality of consumption and outline the different methods that could be used to correct it. **[6 marks]**
26. Using diagrams, explain how the under provision of a merit good can be corrected. **[6 marks]**
27. Evaluate, using diagrams, the use of policy responses, including market-based policies (taxation and tradeable permits) and government regulations, to the problem of positive externalities of production. **[20 marks]**

IB Economics – Market Failure

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3. MULTICHOICE QUESTIONS

Complete each multiple choice quiz.

[50 marks]

1.12A Externalities

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The image shows a graphic for a quiz. At the top, the text '1.12A Externalities' is centered. Below it is a blue button with the text 'Start quiz!' and a white play icon. Underneath the button is the website address 'www.IBDeconomics.com' and 'IB Diploma Economics'. The bottom half of the graphic features a stylized logo with the letters 'vibe' in white, set against a background of a blue globe with grid lines.

1.12B Externalities

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