

1. The ecosystem with Atlantic Cod in Newfoundland is described in the Millennium Ecosystems Assessment (2005). It is a famous example of an ecosystem that shows when over-exploiting the Atlantic Cod:

The answer is:

- a. a delay in how quick the ecosystem changes over time;
- b. a gradual, detectable and predictable kind of ecosystem change;
- c. a gradual change until a certain threshold is reached and sudden large changes occur;
- d. a gradual change with a delay in how quick the ecosystem changes over time.

2. Intergenerational equity is part of the definition of 'sustainable development'. What is the focus of most indicators on sustainable development in practice, according to Kates *et al*, 2005?

The answer is:

- a. On two generations time horizon;
- b. On a single generation time horizon;
- c. On a (very) shorter term than a single generation time horizon;
- d. On a (very) longer term than a two generation time horizon.

3. What action in the Sixth Environmental Action programme seems on track according to "The European environment - State and outlook 2005?"

- 1. Halting of biodiversity decline by 2010
- 2. Increase of share combined heat and power
- 3. Reduction of volumes of waste generated

The answer is:

- a. 1
- b. 2
- c. 3
- d. none of these actions is on track

4. What statement is correct according to "The European environment - State and outlook 2005?"

-1- Decoupling is: breaking the link between environmental pressures and economic growth;

-2- Decoupling has been especially successful with pressures from multiple sources.

The answer is:

a. 1 is correct, 2 is incorrect

b. 2 is correct, 1 is incorrect

c. 1 and 2 are both correct

d. 1 and 2 are both incorrect

5. If a firm wants a summary profile with eco-indicators, the World Business Council for Sustainable Development (WBCSD) proposed five elements. Amongst these are:

1. value of products and services

2. environmental influence

3. economic influence

4. organization profile

The answer is:

a. 1, 2, 3

b. 1, 2, 4

c. 1, 3, 4

d. 2, 3, 4

6. The interconnectedness of the three strategies of pollution prevention, product stewardship and sustainable development, has a few dimensions according to Hart (1995). These dimensions are:

1) path dependency

2) embeddedness and overlapping

3) competitive preemption

4) future position

The answer is:

a. 1 and 2

b. 2 and 3

c. 3 and 4

d. 1 and 3

7. Which of the following activities is not part of what Hart calls the 'product stewardship' strategy?

The answer is:

- a. integrating environmental issues into the product design and development process;
- b. reducing environmental impact during the use of the product
- c. decreasing prices of environmentally sound products
- d. organizing reuse of the products composites after the phase of using

8. Five levels of the sustainability system can be distinguished to interrelate the usable tools for sustainable production according to Robert *et al* (2002). The level of an ecosphere is the level of principles:

The answer is:

- a. that constitute a system;
- b. for a favorable outcome;
- c. for the process to reach the outcome;
- d. none of these above

9. The World Business Council for Sustainable Development (WBCSD) suggests that a wide and flexible framework is needed to describe and implement eco-efficiency. WBCSD states that indicators can have many functions, for instance that indicators give consumers insight in the environmental information about a product. Robert *et al* (2002) states that "given the fact that there is often a lack of clarification regarding the ultimate objectives of 'green work', the indicators of the work are often selected and designed in an equally unclear way." What proof according to Robert *et al* (2002) exists for this statement?

The answer is:

- a. a recent study shows that indicators designed for an EMS, such as an LCA, rarely influence final business decisions;
- b. a recent study shows that indicators for eco-efficiency are getting broader and less specific;
- c. a recent study shows that indicators in an LCA are not communicated with the consumers;
- d. none of these above

10. How far did the concept of co-responsibility penetrate according to Vermeulen (2002)?

The answer is:

- a. the wide segment of average businesses did adopt the concept as shown by the diffusion of new concepts and practices such as life-cycle management, ecodesign and the like;
  - b. a small group of leading companies did adopt the concept as shown by the diffusion of new concepts and practices such as life-cycle management, ecodesign and the like;
  - c. a large group of smaller, more nationally operating businesses did adopt the concept as shown by the diffusion of new concepts and practices such as life-cycle management, ecodesign and the like;
  - d. none of these above
11. What is meant by the silent revolution in the 1990s in The Netherlands according to Vermeulen (2002)?
- 1. the radical change in policy of environmental performance of businesses;
  - 2. the radical change in environmental performance of civil society;
  - 3. the considerable change in relationships between the government, the market and the church;
  - 4. the considerable change in relationships between the government, the market and civil society;

The answer is:

- a. 1 and 2
  - b. 2 and 3
  - c. 3 and 4
  - d. 4 and 1
12. Which two driving mechanisms of diffusion of innovative policy measures rooting in the growing economic and political institutional linkages between nation-states are distinguished by Tews *et al* (2005)?

The answer is:

- a. environmental competition and economical competition
- b. regulatory competition and ideational competition
- c. regulatory competition and economical competition
- d. environmental competition and ideational competition

13. Who, according to Tews *et al* (2005), do serve as filters and in which group of factors that influence the diffusion of policy?

The answer is:

- a. regulatory bodies, in the group of arrangements in dynamics of the international system;
- b. regulatory bodies, in the group of characteristics of the policy instrument;
- c. international institutional arrangements, in the group of dynamics of the international system;
- d. national institutional arrangements, in the group of national factors.

14. According to Tews *et al* (2005) the characteristics of a specific policy innovation can be expected to affect the pattern of diffusion of New Environmental Policy Instruments. The properties of a policy instrument influencing its 'diffusability' can be divided in three relevant categories. Which category does NOT belong to these categories?

The answer is:

- a) underlying problem structure of a policy
- b) economical feasibility
- c) the compatibility (technical feasibility)
- d) political feasibility

15. Which element is *not* part of an Environmental Management System?

The answer is:

- a. Training, awareness and competence activities
- b. Monitoring of the performance of management systems itself
- c. Environmental permits
- d. A mission statement by the top-management

16. Which of the four answers does *not* represent a difference between EMAS and ISO 14001?

- a. The certificate is or is not issued by an independent recognized auditor.
- b. One system addresses environmental aspects, the other discusses environmental impacts and effects,
- c. One system requires application of best available technology, while the other is more flexible.
- d. One system is limited to Europe, while the other is worldwide

17. Goal definition is the first step in the formal procedure of carrying out a LCA. Which of the next activities is *not* a part of the goal definition step?

The answer is:

- a. Determine the unit of service;
- b. Determine whether the packaging of the product is to be included in the analysis;
- c. Determine the level of required improvement of the product;
- d. Determine which product or products will be analyzed.

18. Which of the next statements are correct?

- 1. The *UN Global Compact* addresses the development, implementation and reporting about both environmental and social and ethical issues related to manufacturing.
- 2. Every company in countries that signed the *OECD Guidelines for MNEs* has to comply with the key requirements, including the adoption of technologies and operating procedures in all parts of the enterprise that reflect standards concerning environmental performance in the best performing part of the enterprise.

The answer is:

- a. 1 is correct, 2 is incorrect
- b. 2 is correct, 1 is incorrect
- c. 1 and 2 are both correct
- d. 1 and 2 are both incorrect

19. Internal 'self'-auditing, as described by Welford (1998), is different from the common practice of third party auditing of environmental systems for ISO 14001 as discussed by Slagter (Lecture 5).

Which of the next statements about these differences is correct?

- a. Auditing of environmental systems for ISO 14001 includes the measurement of the environmental impacts of each and every process and operation on air, water, soil, worker health and safety.
- b. Internal 'self'-auditing should not be applied for formulating the firm's environmental policy.
- c. Auditing of environmental systems for ISO 14001 does not imply monitoring the firms emissions, but testing the documented procedures for addressing environmental aspects by random samples.
- d. Internal 'self'-auditing the environmental performance will only be done if governmental authorities demand so.

20. There are three possible situations described by Foster and Green (2000) of how green issues are handled in the process of R&D management. Which one was NOT described by them?

The answer is:

- a. green performance is key for the user and one of the main driving forces behind the innovation project
  - b. there is a new market resulting from the green agenda
  - c. green issues receive only limited attention, most commonly as a compliance check
  - d. the green agenda is central in R&D processes
21. Which organizational function is, in the idealized business according to Foster and Green (2000), 'a conduit for signals' with customers requirements also related to environmental performance?

The answer is:

- a. the Research and Development function
  - b. the Sales and Marketing function
  - c. the Environmental Management function
  - d. the Regulators (and other stakeholders)
22. In what phrase did Schumpeter describe the activity of entrepreneurs who stimulated fundamental change in society according to Larson *et al* (2000)?

The answer is:

- a. the process of economic innovation
  - b. the process of economic destruction
  - b. the process of creative innovation
  - c. the process of creative destruction
23. What was the decision guide of Walden Paddlers that was ever-present as an implicit question applied to all decisions, according to Larson *et al* (2000)?

The answer is:

- a. is this fitting our pollution prevention programme?
- b. are we doing this in as environmentally responsible way as possible?
- c. is this fitting our competitive advantage strategy?
- d. are we doing this in an as cost efficient and eco efficient possible way?

24. There are certain requirements, as shown by the case of Walden Paddlers, for sustainable business entrepreneurs, which are also confirming Schumpeter's theory of modern entrepreneurship, according to Larson *et al* (2000). What requirement is not important for sustainable business entrepreneurs?

The answer is:

- a. the economic opportunity has to be seen by an individual with the right background to be able to see this opportunity
  - b. the combination of visionary leadership and goal setting with attention to detail and relationships has to be present
  - c. a particular location and organization should be present as a context
  - d. the individual should consider the entire value chain as source of opportunity
25. What P2-intervention gives the highest cost reductions and is therefore more profitable in relative terms according to Cagno *et al* (2003)?

The answer is:

- a. reduction at source
- b. recycling
- c. treatment
- d. disposal