

## Försättsblad Prov Original

Kurskod	Provkod	Tentamensdatum
M X 0 2 2 A	T 1 0 0	2 0 1 8 - 1 1 - 0 6
Kursnamn	Miljövetenskap AV, Integrerad miljöbedömning	
Provnamn	Tentamen	
Ort	Östersund	
Termin	H18	
Ämne	Miljövetenskap	

Personal code \_\_\_\_\_



## **Final exam**

**Course name:**

Integrated Environmental Assessment (MX022A), 7.5 ECTS

**Duration:**

4 hours

**Support:**

Language dictionaries allowed

**Examiner:**

Anders Jonsson

**Course coordinator:**

Itai Danielski

### **Important!!!**

**Your personal code must be written on each sheet of paper.**

**Don't forget to register the question number in the answer paper sheets**

**Submit this question sheet together with your answer paper sheet**

**Use clear handwriting, otherwise your answers may not be considered.**

The maximum score for this examination is 100p and the minimum score to pass is 50p.

**Good Luck!**

---

Personal code \_\_\_\_\_

## **Question sheet**

### **Part 1. Concepts and definitions**

5p for each (max 35p)

Explain at least 7 of the following concepts:

1. Albedo
2. Anthropocene
3. Deforestation
4. Carrying capacity
5. Humus
6. Resilience
7. Monoculture
8. Synergy
9. Human development index

Personal code \_\_\_\_\_

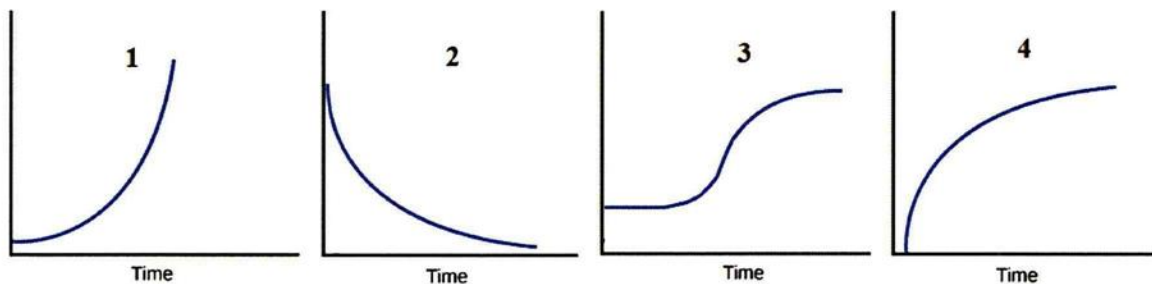
**Part 2. Multiple answer questions**

4p for each (total 16p)

Circle the right answers,

**Note: more than one correct answer is possible**

- 11) What is true about indicators?
- a. Provide feedback on system behaviour and policy performance
  - b. They aggregating different multiple data
  - c. Are facts, numerical observations and statistics
  - d. Can ensure movement toward common goals
- 12) What are the characteristics of Spatial Data?
- a. Collected for one point and results in a single number
  - b. Is used to identify the location and shape of, and relationships among, geographic features and boundaries
  - c. Is often displayed as layers of data
  - d. Cannot be further broken down
- 17) The tragedy of the commons suggests that:
- a. Certain resources are given too high a value
  - b. Resources under common ownership are prone to overuse
  - c. Resources that are owned tend to be managed carefully
  - d. Resources become overexploited when people own them
- 18) Match the following terms with the relevant figures:
- a. Stock adjustment
  - b. Logarithmic growth
  - c. Exponential growth
  - d. Draining



Personal code \_\_\_\_\_

**Part 3. Open questions**

5p for each (total 10p)

- 19) Explain the difference between 'Excludable goods' and 'Rival goods' and provide examples.
- 20) What is the difference between primary data and secondary data? Provide examples for both.

**Part 4. Analysis**

13p for each (total 39p)

- 21) Describe the different parts of the DPSIR framework, and arrange the following statements in the right place:
- liquid wastes were released
  - There is a behaviour change, they tend to travel more by plane
  - Forests have a lack of deadwood
  - Control entry points of waste-water into the water bodies
  - Monitoring stations measured 27  $\mu\text{g}/\text{m}^3$  in PM10 and 17  $\mu\text{g}/\text{m}^3$  in PM2.5 in 2016
  - NO<sub>2</sub> is emitted from gasoline and diesel cars
  - Removal of barriers to fish migration
  - Growth of 2% annually
  - Overuse of fertilizer
  - Car driver stands 71 hours in traffic jams annually
  - The energy demand is still increasing
  - large volumes of gravel were extracted for infrastructure
- 22) You would like to initiate bikeways in your city, i.e. infrastructure roads for bicycles. Write a plan for impact strategy to achieve your goal, which includes all the different stages.
- 23) Describe the Stella model below in terms of:
- What is being measured?  
What are the flows?  
Where are feedback loops? And which type?  
What is missing in the model?

Personal code \_\_\_\_\_

