



Possible questions for exam

Remark: you can always find back a summary of the answer in the slides; so not the whole story, just a summary. The rest of the story can you find back in the course notes, the explanation given in the lessons, the mentioned websites, the visits, ...
In the course notes there are some parts which are not treated in the lessons; there will be no questions about these issues.

1. Discuss the resource-efficiency of an economic system.
2. Discuss the headlines of the EU Waste Management.
3. Discuss the waste hierarchy.
4. Explain EPR – Extended Producer Responsibility.
5. Explain the 'polluter pays principle'
6. Discuss the processes in a landfill of mixed MSW.
7. Discuss the headlines of the EU Landfill Directive.
8. Give the schematic cross section of a sanitary landfill for non-hazardous waste.
9. Landfilling – discuss the water management.
10. Landfilling – discuss the biogas management.
11. Discuss the management of old landfills.
12. Main parts of combustion part of a waste incinerator.
13. Incineration of waste – discuss the complete combustion and Tanner's triangle.
14. Incineration of waste - Flue gas treatment – Why and how to remove dust?
15. Incineration of waste - Flue gas treatment – Why and how to remove acids?
16. Incineration of waste - Flue gas treatment – Why and how to remove heavy metals?
17. Incineration of waste - Flue gas treatment – Why and how to remove nitrogen oxides?
18. Incineration of waste - Flue gas treatment – Why and how to remove dioxins?
19. Discuss the headlines of the WID – Waste Incineration Directive.
20. Incineration of waste – how to recover energy? What are the main parts in the water-steam cycle in case of CHP?
21. Incineration of waste – discuss the energy recovery
22. Incineration of waste - Energy recovery with electricity production: compare the efficiency with a conventional power plant.
23. Discuss the MSW-system in Flanders.
24. Describe (semi-)underground containers; and underground waste collection and transport systems.
25. Discuss size reduction of a waste stream.
26. Discuss the different types of screens.
27. How to separate a mixed waste stream of plastics, ferrous and non-ferrous metals in its components?
28. Discuss the dewatering of sludge.
29. Aerobic composting: describe the composting process and discuss the most important process factors.
30. Discuss outdoor composting of green waste, incl. odour control.
31. Discuss the aerobic indoor composting.
32. Discuss the small scale composting.
33. Anaerobic digestion – describe the digestion process and discuss the most important process factors.
34. Discuss the dry anaerobic digestion system
35. Discuss the treatment of construction and demolition waste