Questions

- ¹ How does the SI system of units define energy and power?
- ² What is momentum?
- ³ What is force?
- ⁴ What is energy?
- ⁵ What is power?
- ⁶ In what units are energy and power expressed?
- ⁷ What does peta mean?
- ⁸ What is the energy content of 1 m³ natural gas (aeq)?
- ⁹ What is the energy content of 1 litre petrol?
- ¹⁰ Give three expressions for the power of one watt *during* a year.
- ¹¹ Give three examples for the power of one watt *during* a year.
- ¹² Express 1 kWh in J.
- ¹³ Give three examples of a power of 100W in every day life.
- ¹⁴ Why is electric energy more expensive than the same energy from gas?
- ¹⁵ What is the relation between entropy and efficiency?
- ¹⁶ Which conversions are combined in an electric power station and which efficiencies are involved?
- ¹⁷ How long could we maintain current energy use by fossile fuels?
- ¹⁸ Name 3 drawbacks of the use of uranium for energy supply, explain every drawback with three
- elements.
- ¹⁹ Where hides the danger of misuse of nuclear energy using a fast breeder reactor?
- ²⁰ What is nuclear fusion. What are the dangers of nuclear fusion?
- ²¹ Which proportion of Dutch energy use is electric?
- ²² What is the best alternative for future energy production?
- ²³ What is the largest flow of commercial energy through The Netherlands?
- ²⁴ For which applications is energy storage of decisive importance?
- ²⁵ Which kind of energy storage is most efficient. Why don't we use it?
- ²⁶ When and at what time a building of 50m casts a shadow of 100m in North-Eastern direction in The Netherlands?
- ²⁷ What is a candela?
- ²⁸ What is a lumen?
- ²⁹ What is a lux?
- ³⁰ What is the name of the age 75 000 B.C?
- ³¹ Where could you find daisies (madeliefjes) and from which month do they flower in the Netherlands?
- ³² Which plants in The Netherlands start to flower in February as pioneering plants, in grassland and in forests?
- ³³ Why are flowering periods important for nature management? What types of biotope have an early flowering period and what types have a late one? What types of biotope have a limited flowering period late in the summer? To what extent can the daily variations in growing circumstances play a role in nature management?
- ³⁴ What is a key characteristic of plants in a built environment?
- ³⁵ What is 'screening' effect of plants?
- ³⁶ What is 'structure' in plantation?
- ³⁷ What can be the effect in time of planting schemes?
- ³⁸ What are restrictions in the choice of plant material?
- ³⁹ What is the primary factor that influences the planting of trees next to buildings?
- ⁴⁰ What are the climatic conditions for use of plantation?
- ⁴¹ Which kinds of plantation are coloured or flowering in spring?
- ⁴² Which kinds of plantation are coloured or flowering in summer?
- ⁴³ Which kinds of plantation are coloured or flowering in autumn?
- ⁴⁴ Which kinds of plantation are coloured or flowering in winter?
- ⁴⁵ Which are the physical conditions for use of plantation apart from the climatic ones?

- ⁴⁶ Which kinds of plantation are applicable in coastal areas?
- ⁴⁷ Which kinds of plantation are applicable on clay/loam soils?
- ⁴⁸ Which kinds of plantantion are applicable on peat soils?
- ⁴⁹ Which kinds of trees are applicable on wet soils?
- ⁵⁰ Which water table is the best situation for trees?
- ⁵¹ In 'sinking' areas (peat soils) in the West of the Netherlands the paving has to be raised every so often, even up to 30 or more centimetres at a time. As a result, many trees receive too little oxygen and die. Which kinds of trees will die?
- ⁵² How is space in streets organised to enable tree planting?
- ⁵³ Which size classes are distinguished concerning trees?
- ⁵⁴ What is the minimum distance between the buildings and the centre of the stem of a size class 1 tree?
- ⁵⁵ What visual effects can be used in tree planting in urban space?
- ⁵⁶ In what ways can planting distances influence the urban environment?
- ⁵⁷ How can hedges be used in creating urban space?
- ⁵⁸ What is 1 bar air pressure?
- ⁵⁹ What is the mass of 1m3 of air on sealevel?
- ⁶⁰ Which relation exists between wind force and velocity?
- ⁶¹ Why could you not multiply a locally measured wind force by the surface of a building to get the total force?
- ⁶² In what order of magnitude air density decreases by altitude?
- ⁶³ How many turningpoints the air temperature counts in the atmosphere from ground level until 500km altitude?
- ⁶⁴ Why do cumulus clouds mainly have a flat bottom?
- 65 Which length has the equator?
- ⁶⁶ Why is the atmosphere thicker at the equator than at the poles?
- ⁶⁷ What are 'trade winds'?
- ⁶⁸ How much energy non airtight houses in a moderate climate winter could loose by 5m/sec increase of average wind velocity?
- ⁶⁹ At which wind velocity a normal wind turbine has its maximum energy production?
- ⁷⁰ In what range the year average potential wind velocity varies in the Netherlands?
- ⁷¹ What is an 'hour average wind velocity'?
- ⁷² What is a 'year average wind velocity'?
- ⁷³ How can wind velocity statistics be reliably simulated?
- ⁷⁴ How is the energy in wind related to its velocity?
- ⁷⁵ What is best to decrease energy losses from buildings: sheltering form the coldest (NE) winds or from the most frequently appearing (SW) wind directions?
- ⁷⁶ From which wind direction a city in the Netherlands could best be sheltered to decrease comfort complaints about wind?
- ⁷⁷ What is the best place concerning all aspects of wind: Schiphol or Eindhoven?
- ⁷⁸ What is the standard class of roughness supposed in wind data?
- ⁷⁹ Which roughness class has obstacles of 10m < H < 15m: bottom regularly and fully covered by rather large obstacles with mutual distance not larger than 2x their height: regular forests, low rise buildings in villages, suburbs?
- ⁸⁰ How much could a windvelocity of 7m/sec on 20m altitude be reduced by 1km urban area?
- ⁸¹ How much could a windvelocity of 5m/sec on 20m altitude be increased by a profile of 500m highway and railway?
- ⁸² If there were no differences in temperature or ground level and water was equally dispersed over the Earth, how deep the ocean would be?
- ⁸³ Why is snow and ice in mountains important?
- ⁸⁴ As a very rough approximation, how much is the m³/sec of discharge per km² catchment area?
- ⁸⁵ What is the 'duration line' of a river?
- ⁸⁶ How changes velocity downstream?
- ⁸⁷ Why are street patterns and artificial drainage systems in flat lands not like a tree but like a lattice?
- ⁸⁸ How large are the differences in sea water levels caused by tides in The Netherlands?
- ⁸⁹ Which Dutch weirs are closed successively to store enough fresh water in the IJssellake during warm and dry periods?
- ⁹⁰ How is salt water intrusion near Rotterdam reduced?
- ⁹¹ What is the hydrological effect of climate change in The Netherlands?

⁹² Which four major systems of coast development can be distinguished in The Netherlands?

- ⁹³ Within which period a severe rainfall with critical intensity must be pumped out completely in Dutch populated and industrialised areas?
- ⁹⁴ The discharge of the river Rhine at Lobith in February 1995 was 12 000m3/sec. What is normal?
- ⁹⁵ Which general subsidence faces The West of the Netherlands until 2050?
- ⁹⁶ The Parliament of The Netherlands decided in 1960 to accept the risk of a disastrous flooding of rivers once in how many years?
- ⁹⁷ What is a Gumble graph?
- ⁹⁸ Give some norms for water storage in urban areas.
- ⁹⁹ Suppose the hierarchy of roads would follow a semi logarithmic sequence of meshwidths. Which nominal meshwidths (exit intervals) and widths (form facade to facade) would then approximately fit best residential streets, main streets, district roads, urban, local, regional and national highways on a Dutch topographic map?
- ¹⁰⁰ If a network with square meshes has a density of 2 km/km², what is then the mesh width?
- ¹⁰¹ What is a normal network density of neighbourhood streets?
- ¹⁰² The most efficient enclosure is made by surrounding the enclosed area with a minimum length of road. Which pattern of continuous network, fits that requirement best?
- ¹⁰³ Why is an orthogonal network pattern so often applied in an urban road network?
- ¹⁰⁴ If a rectangular network with square meshes is elongated into different widths and lengths keeping the same density (road investment), what happens to length of enclosing roads and the surface of the enclosed area?
- ¹⁰⁵ If a rectangular network with square meshes is elongated into different widths and lengths keeping the same density (road investment), which ratio of width and length is then the limit?
- ¹⁰⁶ If a rectangular network with square meshes is elongated into different widths and lengths keeping the same density (road investment), what happens to number of crossings per km2?
- ¹⁰⁷ Which effect has superposition of a higher order over the lower order in a road network, on the density of the lower order?
- ¹⁰⁸ Which kind of interference of two networks delivers the least crossings?
- ¹⁰⁹ Which kind of crossings give the least conflict points?
- ¹¹⁰ What is the maximum span of a suspension bridge?
- ¹¹¹ What is the maximum span of a arch bridge in steel?
- ¹¹² What is the maximum span of a beam bridge in steel?
- ¹¹³ What is the maximum span of a swing bridge?
- ¹¹⁴ Suppose there is a highway on + 0.1 metre. If you want to make a tunnel for cyclists, what length of slopes you will need then on both sides?
- ¹¹⁵ What is the average width of a car?
- ¹¹⁶ What is the average width of a car parking place?
- ¹¹⁷ Which width does a pedestrian need at least in a street profile?
- ¹¹⁸ Which width does a cyclist need at least in a street profile?
- ¹¹⁹ Which width does a car need at least in a street profile?
- ¹²⁰ Which width does a bus need at least in a street profile?
- ¹²¹ Which width requires a normal residential street profile between the facades at average?
- ¹²² At which speed a lane has its higest capacity for cars?
- ¹²³ What is the equivalent per day of 1000 cars per hour?
- ¹²⁴ What is the maximum capacity for cars of a lane?
- ¹²⁵ If three houses in one block are surrounded by roads, what is then the proportion of public pavement to the area between the centre lines of surrounding roads?
- ¹²⁶ What is a normal proportion of public pavement to the area between the centre lines of roads surrounding a residential building block with entrances at all sides?
- ¹²⁷ Which width requires a normal neighbourhood road profile between the facades at average?
- ¹²⁸ Suppose a residential building block surrounded by roads contains some 75 inhabitants going out 4 times a day of which 3 by car. Suppose in 1/3 of the car trips the driver is accompanied by a
- passenger. How many car movements per hour will the residential street count?
- ¹²⁹ If there are 1000 inhabitants in a neighbourhood how many car movements will there be per hour on a neighbourhood road?
- ¹³⁰ How much pavement surface you can save if approximately 200 inhabitants are willing to walk one minute longer into their parking space instead of parking in front of their home?
- ¹³¹ How could you save pavement surface if approximately 2000 inhabitants are willing to walk ten minutes into their parking space instead of parking in front of their home?

¹³² How could vou save neighbourhood pavement surface in a grid of 1x1km district roads filled in with a grid of 300x300 m neighbourhood roads? ¹³³ How was the principle named by Berlage not making X-crossings on central squares, giving access roads along the square a focal point on larger buildings located at T-crossing? ¹³⁴ Which traffic expert proposed a hexagonal grid in 1963? ¹³⁵ How does a regular grid of district roads and neighbour streets solve some problems arising if you look at an isolated neighbourhood only? ¹³⁶ What were the measures of urban islands Cerdà (1867) designed for Barcelona? ¹³⁷ How many urban islands contains a neigbourhood Cerdà (1867) designed for Barcelona? ¹³⁸ What was the width from façade to façade of residential, neighbourhood and district roads Cerdà (1867) designed for Barcelona? ¹³⁹ What are the advantages of a rectangular grid concerning its flexibility? ¹⁴⁰ Why did towns change from a spider into a fly in the regional web? ¹⁴¹ 'Care for the pedestrian is the core of urban design.' In which Dutch publication this statement is supported most extensively? ¹⁴² What causes deviations in a rectangular town grid? ¹⁴³ In what sense the lay-out strategy of public transport lines by busses changed at the beginning of the twentieth century? ¹⁴⁴ What are the km radius served area; km stop distance; km/h velocity; km average ride; minutes per ride; stops per ride; passengers per hour; passengers per stop of bus, tram, fast tram, (semi)metro or NS-sprinter? ¹⁴⁵ What is a light rail? ¹⁴⁶ If 14% of the inhabitants is expected to use metro if available, what density you need for anexploitable metro line? 147 What is earth? 148 What is ground? 149 What is rock? 150 What is soil? ¹⁵¹ What is geology? ¹⁵² What is plate tectonics? ¹⁵³ What is uniformitarianism? ¹⁵⁴ What is geochronology? ¹⁵⁵ What happened between Triassic and Permian? ¹⁵⁶ What is the duration of eons? ¹⁵⁷ What is the Phanerozoic Eon? ¹⁵⁸ How is the Phanerozoic subdivided? ¹⁵⁹ What are strata? ¹⁶⁰ What is the geological cycle and on which insights the concept is based? ¹⁶¹ What is meteorology? ¹⁶² Which major forms of ingenious rock can be found at the surface of the Earth? ¹⁶³ What are sedimentary rocks? ¹⁶⁴ What are metamorphic rocks? ¹⁶⁵ Which kinds of instruments are used by geologists? ¹⁶⁶ What is geomorphology? ¹⁶⁷ Which are the key concepts of geomorphology? ¹⁶⁸ Which are the main processe studied by geomorphology? ¹⁶⁹ What is the difference between weathering and erosion? ¹⁷⁰ Which kinds of weathering could be distinguished? ¹⁷¹ What is abrasion? ¹⁷² Give some examples of chemical weathering. ¹⁷³ Give some examples of biological weathering. ¹⁷⁴ What are the basic activities concerning topography and form of the land starting a design project? ¹⁷⁵ Which are the determining factors in the formation of rivers? ¹⁷⁶ Give some reasons to study river forms in a design project.

- ¹⁷⁷ Which kind of polders you can distinguish?
- ¹⁷⁸ What is soil science?
- ¹⁷⁹ Why is soil science important?
- ¹⁸⁰ How deep does soil science go?
- ¹⁸¹ What is parent material?

- ¹⁸³ Wich organic factors could have influenced the properties of the soi?
- ¹⁸⁴ Wich topographic factors could have influenced the properties of the soil?
- ¹⁸⁵ Name four phases of soil formation.
- ¹⁸⁶ Which soil horizons you can distinguish?
- ¹⁸⁷ What is the physical structure of sand, clay and peat?
- ¹⁸⁸ How could you identify the particle size of soil?
- ¹⁸⁹ Which zones of soil saturation by water can be distinguished?
- ¹⁹⁰ What is the difference between soil water and ground water?
- ¹⁹¹ At what specific places in the western part of Holland, the influence of seawater is apparent and why is that?
- ¹⁹² Hoe could you easily determine the depth of the groundater zone?
- ¹⁹³ Why is sand more easily drained than clay?
- ¹⁹⁴ What is a groundwater table and why is it important?
- ¹⁹⁵ What is seepage and at which places does it take place in Holland?
- ¹⁹⁶ Which characteristics of soil determine their use?
- What is the main difference of using sand, clay and peat?
- ¹⁹⁷ What is the cause of the magnetic field of the Earth?
- ¹⁹⁸ Why is the composition of the Earth's crust different from that of the Earth as a whole?
- ¹⁹⁹ Why is the composition of the Earth's crust different according to its depth?
- ²⁰⁰ Why are the minerals near the surface of the Earth mainly oxides?
- ²⁰¹ What is the difference between minerals and rocks?
- ²⁰² What is the difference between mafic and felsic rock?
- ²⁰³ What is the most important mineral in igneous rock?
- ²⁰⁴ What are two different approaches in preparing a site for development?
- ²⁰⁵ Which site preparation methods can be distiguished?
- ²⁰⁶ What is the number of kown species on Earth?
- ²⁰⁷ Who called biodiversity 'a risk cover for life'?
- ²⁰⁸ What is botanical taxonomy?
- ²⁰⁹ What class of life forms counts the highest number of species in the Netherlands?
- ²¹⁰ What were the first organisms producing oxygen from carbon dioxide?
- ²¹¹ When established life a foothold beyond the sea by which mosses and liverworts (Bryophyta) brought a green colour to the wet parts of the land?
- ²¹² What is the evolutionary advantage of vascular plants?
- ²¹³ From which period we recognise ice ages (glacials) and warmer interglacials in the soil of the Netherlands?
- ²¹⁴ How is the last ice age named?
- ²¹⁵ In which period the higher parts of the Netherlands were formed?
- ²¹⁶ To which depth Holocene deposits under Delft reach?
- ²¹⁷ Where in the Netherlands is the sedimentation deposited since the last Ice Age the thickest? How thick is it there? How thick is it under Delft? From what period of time after the last Ice Age have human beings been present in the Netherlands? Did human beings live in the Netherlands before the last Ice Age?
- ²¹⁸ A year counts 8760 hours. How many hours per m² do people spend in shops, how many in home and garden?
- ²¹⁹ What is a curve of ecological tolerance?
- ²²⁰ Who was Brundtland?
- ²²¹ What is 'sustainable develoment' in terms of the UN World commission environment and development (1990)?
- ²²² What are reflexive judgements and what kind of problems do they raise?
- ²²³ What does the term 'scale paradox' emphasise?
- ²²⁴ What is a 'nominal value'?
- ²²⁵ How could you articulate a state of dispersion by scale?
- ²²⁶ By whom ecology is defined as 'the scientific study of the distribution and abundance of organisms'?
- ²²⁷ What is the difference between autecology and synecology?
- ²²⁸ What kind of ecology is elaborated by Grime, Hodgson et al. (1988)?
- ²²⁹ What is a biomen?

¹⁸² Summarise five soil forming factors.

²³⁰ What are the average global life conditions of a desert, maquis, grassland, moderate decideous forests?

- ²³¹ What are the average global life conditions of the Netherlands?
- ²³² Welke Europese floragebieden zijn in Nederland vertegenwoordigd?
- ²³³ Which vegetation areas are destinguished in the Netherlands?
- ²³⁴ At which altitude approximately Holocene and Pleistocene are separated in the Netherlands?
- ²³⁵ How many nature target types Bal, Beije et al. distinguished in 2001?
- ²³⁶ Welke drie geologische eenheden onderscheidt men in Nederland?
- ²³⁷ For which parts of the Netherlands respectively barley, wavy hair-grass, marram, greater burdock are typical?
- ²³⁸ Which trees are general in the Netherlands?
- ²³⁹ Which trees are specific for holocene and river grounds in the Netherlands?
- ²⁴⁰ Which trees are specific for pleistocene and dunes in the Netherlands?
- ²⁴¹ Noem vier plantengeografische districten die in Nederland worden onderscheiden. Noem uit elk district twee kenmerkende bomen of planten.
- ²⁴² Where are Holoceneous willow and poplar forests (salicion) often found?
- ²⁴³ Where are Holoceneous alder and ash forests with densely shrubs (alnion incanae) often found?
- ²⁴⁴ Where are Holoceneous oak, ash (somtimes elm or maple, ulmion) forests often found?
- ²⁴⁵ Where are holoceneous Hedges and thickets (sambuco-berberidion) often found?
- ²⁴⁶ Where are pleistoceneous hedges and thickets (hawthorn, sloe, roses, blackberries, rubion) often found?
- ²⁴⁷ Where are pleistoceneous oak, ash (sometimes maple or beech, carpinion) forests mostly found?
- ²⁴⁸ Where are pleistocenious oak (seldom birch or beech) forests or coppice wood mostly found?
 ²⁴⁹ Where are pleistoceneous oak (sometimes birch or beech, violeto-quercion) forests or coppice wood mostly found?
- ²⁵⁰ Where are pleistoceneous oak (sometimes birch or beech, vaccinio-quercion) forests or coppice wood mostly found?
- ²⁵¹ Where are rarefied birch peat forests (betulon pubescentis) mostly found?
- ²⁵² Where are Birch (sometimes alder) peat forests (sphagno-alnion) with shrubs of alder buckthorn, willows, bog myrthle sometimes found?
- ²⁵³ Where are Alder or willow (mostly coppice wood) peat forests (irido-alnion) mostly found?
- ²⁵⁴ Waardoor draagt hetzelfde biotooptype niet altijd dezelfde levensgemeenschap? Noem twee klassen uit de klassificatie volgens Den Held (1989).
- ²⁵⁵ Noem drie ecologische groepen die achteruitgaan.
- ²⁵⁶ Waarom is de indeling naar biotooptypen van Runhaar, Groen, Van der Meijden en Stevers niet op oorzakelijke differentiatiefactoren zoals bodemtype en waterhuishouding gebaseerd?
- ²⁵⁷ Wat zijn de voordelen van een zekere hiërarchie in de typologie?
- ²⁵⁸ Wat betekenen in de Heukels' Flora bij een soort achtereenvolgens de volgende toevoegingen: W18sa, V11, H27, G23, P21, P28, H42, H47, G47kr, P41, P42, P43, P40mu, H61, H63, P63ro.
- ²⁵⁹ Runhaar c.s. (1987) houden als criterium voor de indeling van soorten in biotooptypen en ecologische groepen aan. Welk criterium voor de indeling van soorten in biotooptypen houden Runhaar c.s. aan en waarom?
- ²⁶⁰ Geef een voorbeeld van de causale samenhang tussen voedselarmoede en soortenrijkdom
- ²⁶¹ Op welke schaalniveaus en waarom is de herkenning van planten en dieren onderling en door elkaar van belang? Welke factoren spelen daarbij een rol? In welke fase van de voortplanting is deze herkenning belangrijk en welke fase volgt daarna? Welke betekenis heeft dit voor de planning van ecologische infrastruktuur?
- ²⁶² Welke overlevingsstrategieën onderscheidt Grime (1988)?
- ²⁶³ Geef 5 verschillen tussen pionierstadium en climaxstadium volgens Odum (1971).
- ²⁶⁴ Wat betekenen de strategieeën volgens Grime voor de eisen die de plant aan de bodem stelt? Naar welke categorie gaat de belangstelling van de natuurbescherming in het bijzonder uit?
- ²⁶⁵ What is systems ecology?
- ²⁶⁶ Give an indication in order of size of 6 claims on the surface of the Deltametropolis.
- ²⁶⁷ How could you define an urban centre, an urban outskirt, a green urban area, a village and a rural living environment morphologically?
- ²⁶⁸ Which 3 three robust connections counts Deltametropolis in the National Plan of NATURE POLICY [LNV, 2 000a #810]
- ²⁶⁹ How does the National Plan of NATURE POLICY control the biological identity of areas?

- ²⁷⁰ Why is global biological diversity a basic criterion for ecological evaluation and how could you make it locally operational?
- ²⁷¹ The 4th National Plan of WATERMANAGEMENT POLICY [V&W, 1998c #829], and its last successor 'Anders omgaan met water'[V&W, 2 000b #832] mark a change from accent, just as the 4th National Plan of ENVIRONMENTAL POLICY [VROM, 2 001a #839] compared with its predecessors. Which change of accent is that?
- ²⁷² Which future problems in watermanagement and proposed solutions have a great impact on landuse in the Netherlands? Which solutions are proposed in the 4th National Plan of WATERMANAGEMENT POLICY [V&W, 1998c #829], and its last successor 'Anders omgaan met water'[V&W, 2 000b #832]?
- ²⁷³ Which kind of ecology is human ecology?
- ²⁷⁴ When lived homo habilis and which change of habitat accompanied its appearance?
- ²⁷⁵ How old is the genus 'homo' and which capacity determines that distinction from other species?
- ²⁷⁶ Noem 3 menselijke eigenschappen die wel worden toegeschreven aan het leven in een boommilieu voorafgaand aan Homo Habilis.
- ²⁷⁷ Schets enkele ergonomisch en architektonisch relevante kenmerken van het bosmilieu.
- ²⁷⁸ In which biomen the highest human population densities are found? In which biomen the majority of people live?
- ²⁷⁹ In which biomens most types of ancient economic household management are found?
- ²⁸⁰ Welke relatie bestaat tussen huishouding en dichtheid?
- ²⁸¹ In what nominal radius 100 efficient ancient hunters and farmers could survive respectively?
- ²⁸² Which consequences the transition from gathering and hunting to agriculture have had?
- ²⁸³ What is the neolithic revolution?
- ²⁸⁴ How could the slowing down of world population growth around the beginning of the Christian era be explained?
- ²⁸⁵ Around the beginning of the Christian era European population slowed down. By which mediaeval development a renewed growth was caused?
 ²⁸⁶ To which acclesies and the second state of the se
- ²⁸⁶ To which ecological model war and illness, such as the pest epidemic around 1300 A.D., could be compared?
- ²⁸⁷ By which economic factor in the past milennium decrease of population was often preceded?
- ²⁸⁸ Where death rates vary per generation, there is also a variation in birth rates. How to contain these variations within one model?
- ²⁸⁹ What is a logistic curve?
- ²⁹⁰ Concerning limited availability of raw materials the growth of a technology or a population slow down after a period of exponential growth. However, a new technology can restore the growth of a population into exponential growth. How is the overall curve called?
- ²⁹¹ Which shapes the curve of a mathematical chaos function could produce?
- ²⁹² Wich population maxima for the Netherlands have been predicted by the CBS between 2002 and 2006?
- ²⁹³ In which societies cases of birth control by infanticide, abortion and restricting coitus are confirmed?
- ²⁹⁴ By which development the biggest mass migration ever was caused?
- ²⁹⁵ Name some societal consequences of the industrial revolution.
- ²⁹⁶ Which relation is found between increasing population density and differentiation of functions?
- ²⁹⁷ Name some physical consequences of living in high densities.
- ²⁹⁸ In which dimensions intensity of use can be measured?
- ²⁹⁹ Which planning methods are available to avoid displacement and waiting?
- ³⁰⁰ Why is intensity of use important for spatial planning?
- ³⁰¹ Why plays intensity of use seldom a role in spatial planning?
- ³⁰² Which urban space was the most intensily used in 1983?
- ³⁰³ How much time urban inhabitants are since long prepared to accept for travelling twice a day between their homes and their work?
- ³⁰⁴ Which remarkable developments in the Dutch landscapes could be mentioned in the periods of 1000 1100
- 1675 1800
- 1850 1960
- 1960 2000 A.D.
- ³⁰⁵ Which ecologically relevant human activities can be distinguished on the lowest level of scale and what are its ecological effects?

- ³⁰⁶ How agriculture in the Netherlands until 1900 A.D. has increased the number of species?
- ³⁰⁷ Give a schematic overview of the ecological influence of traditional and modern agriculture.
- ³⁰⁸ How many m2 agricultural, natural and urban space the Netherlands counts per inhabitant?
- ³⁰⁹ Which proportion of the urban area (industry and recreational areas excluded) is residential in the Netherlands?
- ³¹⁰ What is 'residential area' according to the CBS?
- ³¹¹ How does the residential area vary in different parts of the Netherlands?
- ³¹² Why the use of Planological Index Numbers for the amount of space needed for facilities should be put into perspective?
- ³¹³ By which factor you can derive the number of dwellings from population density?
- ³¹⁴ How did the average number of occupants per household in the Netherlands develop after the Second World War?
- ³¹⁵ Geef de namen van relatief bebouwde en onbebouwde gebieden in een semi-logaritmische morfologische reeks tussen 30km en 10m.
- ³¹⁶ Geef de namen van ontsluitingswegen in een semi-logaritmisch-morfologische reeks tussen 30m en 10km.
- ³¹⁷ Geef de namen van waterlopen in een semi-logaritmische reeks tussen 30m en 100km.
- ³¹⁸ Hoe kun je in een gestyleerd regionaal plan de planlaag onderscheiden van de reeds bestaande gebieden? Geef een voorbeeld van functionele inkleuring van legenda-eenheden voor bebouwd en onbebouwd gebied in een gestyleerd regionaal plan.
- ³¹⁹ How could the current definition of environment as 'physical surroundings of society' be changed to be part of a family of technically useful definitions?
- ³²⁰ How could accomodation and adaptation be opposed?
- ³²¹ In which mode operate design, empirical research, policy and art respecitively?
- ³²² Which kinds of sources, emissions, transmissions and suffering objects can be distinguished?
- ³²³ Which kinds of environmental standards can be distinguished?
- ³²⁴ How could emissions of an area be estimated?
- ³²⁵ Which compounds contains the largest amount of combustion and which process emissions?
- ³²⁶ Give 3 examples of hydrocarbons and their impacts.
- ³²⁷ In which measures standards for complex mixtures are given?
- ³²⁸ Which kind of emission is most predictable, distance-sensitive and controllable within the framework of spatial planning?
- ³²⁹ What contains transmission?
- ³³⁰ What is 'troposphere'?
- ³³¹ Warm air rises until the surroundings become warmer, but, in retaining its own heat content, rising air also cools off due to expansion. How much °C pe r 100 m it cools off?
- ³³² In which weather circumstances air pollution accumulates?
- ³³³ What is an inversion? When does it occur and why? How does an inversion dissolve? In which circumstances it remains?
- ³³⁴ Why is the underside clouds mainly flat?
- ³³⁵ Why do the temperate climates often have turbulent wheathers?
- ³³⁶ Which air streams meet in temperate climates?
- ³³⁷ Which turning direction do whirling air movements have in the Northern hemisphere and why?
- ³³⁸ How changes the wind direction in coastal areas after a sunny day and why?
- ³³⁹ Welke beperking geldt voor de het voorspellen van verspreiding van luchtvervuiling in stedelijk gebied?
- ³⁴⁰ Welke drie soorten verspreidingsmodellen bestaan er?
- ³⁴¹ Met welke 3 maten kan concentratie van luchtverontreiniging gemeten worden?
- ³⁴² Welke ontwikkeling heeft de transmissieberekening in water te zien gegeven vanaf 1960?
- ³⁴³ Waarom gebruikt men bij de berekening van grondwaterstromen niet altijd driedimensionale modellen?
- ³⁴⁴ Wanneer kan men ook met tweedimensionale modellen volstaan?
- ³⁴⁵ Noem 5 bronnen voor een snelle orientatie omtrent de eventuele risico's van verbreiding van bodemverontreiniging. Waar moet men op letten?
- ³⁴⁶ Wat betekent pH, Eh, k en CEC? Wat is in dit verband het verschil tussen zand en veen?
- ³⁴⁷ Geef 3 benaderingen die ooit zijn toegepast om de prijs van een mensenleven te ramen. Is een van deze benaderingen naar Uw inzicht redelijk? Zo niet, hoeveel geld moet er dan naar Uw inzicht aan het herstel van het milieu worden uitgegeven wanneer U daarmee een mensenleven zou kunnen redden? Wie moet dat bedrag betalen wanneer de schuldigen niet kunnen worden aangewezen?

³⁴⁸ Which are the three approaches ever used to estimate the price of a human life? Is one of these approaches reasonable in your view? If not, how much money must then, in your view, be spent on the environment, to save one human life? If the guilty parties cannot be identified, who should then pay that amount?

- ³⁴⁹ What is a dose-response relation? What does LD50 mean?
- ³⁵⁰ Hoe zou men een dosis- effectrelatie voor materialen kunnen vaststellen?
- ³⁵¹ Hoe kent men de dosis- effectrelatie van een groot aantal stoffen bij mensen?
- ³⁵² Welke organen spelen een rol bij de opname en verwerking van vergiftigingen?
- ³⁵³ Hoeveel % sterfte kan men ongeveer voorkomen door een reduktie in de luchtverontreiniging van ca. 10%?
- ³⁵⁴ Why is the pollution prevention insufficient for retaining plant and animal species?
- ³⁵⁵ Which individual chance of dying per annum caused by the totality of environmental risks to human beings is accepted by Dutch government; what is the maximal acceptable level for each single activity or substance?
- ³⁵⁶ What is an environmental target value (streefwaarde) in the Netherlands?
- ³⁵⁷ What is an environmental threshold value (drempelwaarde) in the Netherlands?
- ³⁵⁸ What is an environmental limiting value (grenswaarde) in the Netherlands?
- ³⁵⁹ What is an environmental guide value (richtwaarde) in the Netherlands?
- ³⁶⁰ What is an environmental quality target (milieukwaliteitsdoelstelling) in the Netherlands?
- ³⁶¹ What is an environmental quality requirement (milieukwaliteitseis) in the Netherlands?
- ³⁶² How could an economic optimum of environmental quality be determinded?
- ³⁶³ How does the strictness of environmental standards mainly vary with he area they apply?
- ³⁶⁴ Wat betekent EPEL, MAC, TLV?
- ³⁶⁵ Waarin schieten de bestaande milieudoelstellingen van het NMP tekort ten opzichte van 'sustainable development' bij verdubbeling van de bevolking?
- ³⁶⁶ Welke direkte bijdragen aan de milieugebruiksruimte kunnen aan het bouwen worden toegewezen?
- ³⁶⁷ Hoe kan men de eigen milieutaak van het bouwen in termen van milieugebruiksruimte formuleren?
- ³⁶⁸ In hoeverre kan men de in het NMP+ opgesomde bijdragen van de doelgroep 'Bouw' ook aan andere doelgroepen toerekenen?
- ³⁶⁹ Which environmental problems the NMP1 distinguished as global?
- ³⁷⁰ Which environmental problems the NMP1 distinguished as continental?
- ³⁷¹ Which environmental problems the NMP1 distinguished as fluvial?
- ³⁷² Which environmental problems the NMP1 distinguished as regional?
- ³⁷³ Which environmental problems the NMP1 distinguished as local?
- ³⁷⁴ Which policy outlines the NMP1 used as an agenda to the discussions with target groups?
- ³⁷⁵ Hoe zou men verschillende milieuthema's en -doelstellingen onderling kunnen wegen?
- ³⁷⁶ Noem 5 'ver-thema's' uit het milieubeleid sinds het NMP.
- ³⁷⁷ Welk thema is stilzwijgend verondersteld bij elk milieuthema sinds het NMP?
- ³⁷⁸ What is a groundwater table and why is it important?
- ³⁷⁹ What information must be incorporated into the "follow-up investigation" report?
- ³⁸⁰ What are the causes of soil pollution in industrial sites?
- ³⁸¹ What is a reference value?
- ³⁸² What is a target value?
- ³⁸³ What is an intervention value?
- ³⁸⁴ Name at least 5 operational activities that can cause soil pollution.
- ³⁸⁵ Which remediation methods have been identified?
- ³⁸⁶ Name 3 purification techniques.
- ³⁸⁷ When should contaminated soil tipping be considered?
- ³⁸⁸ When is contaminated soil storage preferred?
- ³⁸⁹ List 3 disadvantages of in-situ soil purification.
- ³⁹⁰ List 3 advantages of in-situ soil purification.
- ³⁹¹ When is contamination isolated?
- ³⁹² What is the focus of soil remediation?
- ³⁹³ What is structure and why can it be developed separately as a design category between form and function, and how can one recognise structure in the drawing?
- ³⁹⁴ Give an example of polarity between 'open' and 'closed' on five different levels of scale. Are they positioned perpendicular to each other or equidistant? Are they motoric or sensoric?
- ³⁹⁵ What is 'function' in the technical–ecological sense?

- ³⁹⁶ Give the main division of urban functions according to the concepts of George, Parsons and Jakubowski.
- ³⁹⁷ On which variable should one be able to classify intentions?
- ³⁹⁸ What alternative is there for freedom of choice by introducing flexibility into the design?
- ³⁹⁹ What is the fundamental problem that comes to the fore when we want to make a 'programme of requirements' for nature and what is De Jong's suggested way out?
- ⁴⁰⁰ Which suppositions hides a legend using the CIAM typology of living, working, recreating and travelling for a district sketch (R=1km, r=100m)?
- ⁴⁰¹ Give a meaning to each cell in Fig. 1105 in words or in small illustrations. Make whether on location or not a design sketch in the five colours in which all transitions occur, each in at least four directions of the compass. Make a detailed design sketch of at least three transitions. Then characterise each area by means of its boundaries.

Page 380: [1] Comment [T.M. de15] Jong

Pagina: 468

Bovenste deel van hellingen in Zuid-Limburg, grensstrook tussen Ulmoin en Vaccinio-Quercion in geaccidenteerde zandgebieden, hoogste gedeelte van de oude strandwallen, op dunnen zankdgebieden, hoogste gedeelte van de oude strandwallen, op dunnen lagen dekzand op keileem, verlaten en beboste oude bouwlanden op zandgrond enz.

Page 380: [2] Comment [T.M. de16]

Jong

Jong

Pagina: 468

Vlakke plateaus in Zuid Limburg, het grootste gedeelte van de pleistocne znadgebieden in Oost en Zuid Nederland, plaatselijk in het jonge en oude duinlandschap.

Page 380: [3] Comment [T.M. de18]

Pagina: 469

Laagste gedeelten met slecht waterafvoer in de pleistocene zandgebieden, voedselrijkere delen van de veengebieden in Noord en Zuid Holland, Noord-West Overijssel en Friesland.