



# Final attainment level and test criteria for VCA

April 2015

## Final attainment level and test criteria for VCA

01. Legislation
02. Dangers, risks and prevention
03. Accidents: causes and prevention
04. Safety conduct
05. Tasks, rights, duties and discussions
06. Procedures and instructions, signs
07. Preparations for emergencies
08. Hazardous materials
09. Fire and explosion
10. Equipment
11. Specific activities and circumstances
12. Electricity and radiation
13. The ergonomic workplace
14. Personal Protection Equipment (PPE)

## 01. Legislation

### 01.01 Basic principles of health and safety legislation

#### 01.01.01 Basis / VOL VCA / VIL VCU

The candidate knows the key concepts in the Dutch national H&S legislation

##### 01.01.01.01 BE / Bb

The candidate can describe the concept of CODEX

- 01.01.01.01.01 • Implementation decrees of the national Social Welfare Act

##### 01.01.01.02 BE / Bb

The candidate can describe the concept of the Social Welfare Act

- 01.01.01.02.01 • Belgian legislation for the protection of the health and safety of the employees at the workplace

#### 01.01.02 Basis / VOL VCA / VIL VCU

The candidate knows the key concepts in the national H&S legislation

##### 01.01.02.01 NL / Bb

The candidate can describe the concept of ARBO

- 01.01.02.01.01 • Working conditions/ occupational health and safety

#### 01.01.03 Basis / VOL VCA / VIL VCU

The candidate can describe the objectives of the H&S legislation

##### 01.01.03.01 Bb

The candidate can describe the objectives of the H&S legislation

- 01.01.03.01.01 • Protection when carrying out activities
- 01.01.03.01.02 • Improving the health and safety of employees at the workplace
- 01.01.03.01.03 • Working conditions that are as good as possible

#### 01.01.04 Basis / VOL VCA / VIL VCU

The candidate can describe the applicability of the H&S legislation

##### 01.01.04.01 Bb

The candidate can describe what the H&S legislation relates to

- 01.01.04.01.01 • The legislation describes the rights and obligations of both the employer and the employee in the area of health and safety at the workplace and the conditions in which the work is carried out

##### 01.01.04.02 Ff

The candidate can state at which locations the H&S legislation applies

- 01.01.04.02.01 • All locations where work is carried out

##### 01.01.04.03 Ff

The candidate can state the people to whom H&S legislation applies

- 01.01.04.03.01 • Employer
- 01.01.04.03.02 • Employees (including temporary staff and similar employees including trainees, volunteers (Be))

##### 01.01.04.04 Ff

The candidate can state the domains to which the H&S legislation relates

- 01.01.04.04.01 • Safety
- 01.01.04.04.02 • Health
- 01.01.04.04.03 • Welfare

#### 01.01.05 VOL VCA / VIL VCU

The candidate can describe the assumptions behind the H&S legislation

**01.01.05.01 Bb**

The candidate can describe the assumptions behind the H&S legislation

- 01.01.05.01.01 • The employer protects the health and safety of the employees with respect to all aspects related to the work and adopts a policy to do so
- 01.01.05.01.02 • Work must not have a negative influence on the health and safety of employees
- 01.01.05.01.03 • Identification and control of risks
- 01.01.05.01.04 • Support provided by experts or services
- 01.01.05.01.05 • Information for and instruction of employees
- 01.01.05.01.06 • Consulting and collaborating with the employees (representation)

**01.02 The concept of welfare**

**01.02.01 VOL VCA / VIL VCU**

The candidate can describe the concept of welfare

**01.02.01.01 BE / Ff**

The candidate can state the various domains to which welfare at the workplace relates

- 01.02.01.01.01 • Work Safety
- 01.02.01.01.02 • Health: protection of health of the employee at the workplace
- 01.02.01.01.03 • Psychosocial stress caused by the work
- 01.02.01.01.04 • Ergonomics
- 01.02.01.01.05 • Labour hygiene
- 01.02.01.01.06 • Embellishment of the workplaces
- 01.02.01.01.07 • Living environment: company measures with respect to the (internal) living environment for as far as they influence the points mentioned above

**01.02.01.02 BE / Bb**

The candidate can describe the content and meaning of the concept of welfare

- 01.02.01.02.01 • The sum of the factors related to the conditions in which work is carried out

**01.02.01.03 BE / Bb**

The candidate can describe or illustrate with examples the various domains to which welfare relates

- 01.02.01.03.01 • Work safety: prevention of accidents with machines, falling, heat, etc.
- 01.02.01.03.02 • Health: prevention of occupational diseases by monitoring health, vaccination, hearing and vision tests, etc.
- 01.02.01.03.03 • Psychosocial stress: promoting psychological welfare (stress, harassment, violence, undesired sexual harassment, etc.)
- 01.02.01.03.04 • Ergonomics: adapt the workplace (work, equipment and working environment) to the human being by taking account of comfort (e.g. good working seat, lighting, physical loads, user friendliness (minimum of actions), understandability)
- 01.02.01.03.05 • Labour hygiene: prevention of harmful influences that are related to the nature of the activity
- 01.02.01.03.06 • Embellishment of the workplaces (sanitary facilities, canteen, rest room)
- 01.02.01.03.07 • Living environment: waste collection, storage of hazardous substances

**01.02.01.04 Ff**

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The candidate can state ways in which the employer must guarantee the welfare of the employees

01.02.01.04.01 • The layout of the workplace must be amended to suit the employee

01.02.01.04.02 • Account must be taken of the personal factors associated with the employee, such as age, gender, knowledge of the language used and skill

01.02.01.04.03 • Avoid monotonous work

### 01.03 Expert support

#### 01.03.01 Basis / VOL VCA / VIL VCU

The candidate can describe the way in which the employer is supported regarding prevention and protection

##### 01.03.01.01 NL / Bb

The candidate can describe the way in which the employer is supported in the area of prevention and protection

01.03.01.01.01 • Every employer establishes an internal prevention department

01.03.01.01.02 • If the company has insufficient in-house expertise, the employer calls upon external support

##### 01.03.01.02 BE / Bb

The candidate can describe the way in which the employer is supported in the area of prevention and protection

01.03.01.02.01 • Every employer establishes an internal prevention department

01.03.01.02.02 • One or more expert employees are appointed, including at least one prevention consultant

01.03.01.02.03 • If the company has insufficient in-house expertise, the employer calls upon an acknowledged external support service

#### 01.03.02 VOL VCA / VIL VCU

The candidate can describe what the roles and authorisations of expert persons or services are regarding prevention and inspection

##### 01.03.02.01 Bb

The candidate can describe the function of experts or services in the area of prevention and inspection

01.03.02.01.01 • To support the employer and employees in the application of the H&S legislation

##### 01.03.02.02 NL / Bb

The candidate can describe the main tasks of the experts or services in the area of prevention

01.03.02.02.01 • To cooperate in the risk inventory and evaluation

01.03.02.02.02 • To cooperate in accident and incident investigation

01.03.02.02.03 • To advise and cooperate with the employees (representation)

01.03.02.02.04 • To perform occupational health examinations

01.03.02.02.05 • To supervise employees who because they are ill are incapable of carrying out their work

##### 01.03.02.03 BE / Bb

The candidate can describe the main tasks of the experts or services in the area of prevention

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- 01.03.02.03.01 • To cooperate in the risk inventory and evaluation
- 01.03.02.03.02 • To cooperate in accident and incident investigation
- 01.03.02.03.03 • To advise and cooperate with the employees (representation)
- 01.03.02.03.04 • To perform occupational health examinations

### 01.03.02.04 BE / Bb

(expired April 2011)

### 01.03.02.05 BE / Ff

The candidate can state the main tasks of the inspection services

- 01.03.02.05.01 • The periodic testing of specific appliances and systems
- 01.03.02.05.02 • To draw up a report for the employer regarding the tests carried out and the findings

### 01.03.03 VOL VCA / VIL VCU

The candidate can describe the purpose and applicability of health monitoring

#### 01.03.03.01 Bb

The candidate can describe the purpose of health monitoring

- 01.03.03.01.01 • To propose measures to prevent damage to health during the execution of the occupation
- 01.03.03.01.02 • To prevent and track down occupational diseases in a timely way
- 01.03.03.01.03 • Determine whether an employee is medically suitable for a task

#### 01.03.03.02 BE / Ff

The candidate can state examples of the main risks for which health monitoring is obligatory

- 01.03.03.02.01 • Risk of exposure resulting in occupational disease: chemical substances such as solvents, carcinogenic substances, biological agents, noise, vibration, severe cold, heat, ionising radiation
- 01.03.03.02.02 • Safety function and alertness function
- 01.03.03.02.03 • Contact with unpacked foodstuffs
- 01.03.03.02.04 • Exposure to a load of an ergonomic nature: monitors, lifting heavy loads
- 01.03.03.02.05 • Young people
- 01.03.03.02.06 • Disabled people

### 01.03.04 Basis / VOL VCA / VIL VCU

The candidate can describe the general obligations of the employer with respect to health monitoring

#### 01.03.04.01 Bb

The candidate can describe the obligation of the employer with respect to health monitoring

- 01.03.04.01.01 • To give employees the opportunity to participate in a medical examination to prevent and limit the risks to health

### 01.03.05 VIL VCU

The candidate can describe the assignment and the tasks of the central prevention service for the employment agency sector

#### 01.03.05.01 BE / Bb

The candidate can describe the assignment and the tasks of the central prevention

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### service for the employment agency sector

- 01.03.05.01.01 • The assignment is to promote the health and safety of the temporary agency workers
- 01.03.05.01.02 • To provide advice to the temporary employment organisations
- 01.03.05.01.03 • To draw up accident statistics
- 01.03.05.01.04 • Study
- 01.03.05.01.05 • Investigation
- 01.03.05.01.06 • To run sensitization programmes

## 01.04 Care for people other than employees

### 01.04.01 VOL VCA / VIL VCU

The candidate can name persons for whom the employer has the obligation to take effective measures in order to avoid risks as far as possible

#### 01.04.01.01 Ff

The candidate can name persons for whom the employer has the obligation to take effective measures in order to avoid risks as far as possible

- 01.04.01.01.01 • Employees of other employers who are present at the workplace
- 01.04.01.01.02 • Suppliers, visitors, patients, etc.
- 01.04.01.01.03 • Neighbours

#### 01.04.01.02 Bb

The candidate can describe the general obligations of all employers who are active on the same location

- 01.04.01.02.01 • To collaborate in the execution of the measures related to the health and safety of the employees and to coordinate their actions in this respect

## 01.05 Supervision in H&S legislation

### 01.05.01 Basis / VOL VCA / VIL VCU

The candidate can describe the way in which the authorities monitor compliance with the legislation

#### 01.05.01.01 Bb

The candidate can describe the authority of the inspection services

- 01.05.01.01.01 • To monitor compliance with the Health and Safety legislation
- 01.05.01.01.02 • To instigate an investigation into the cause of an accident
- 01.05.01.01.03 • To ask employees for valid proof of identity
- 01.05.01.01.04 • To set requirements with respect to the manner in which the Health and Safety legislation must be complied with
- 01.05.01.01.05 • To halt activities if there is a serious danger to the people present
- 01.05.01.01.06 • To draw up an official report following an offence
- 01.05.01.01.07 • To give a warning if the regulations are not observed

### 01.05.02 VOL VCA / VIL VCU

The candidate can describe the general rule regarding responsibility

#### 01.05.02.01 Bb

The candidate can describe the general rule regarding responsibility

- 01.05.02.01.01 • The employer who gives instructions, provides supervision and issues equipment is also responsible for compliance with the H&S legislation

### 01.05.03 VOL VCA / VIL VCU

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The candidate can describe the options for sanctions by the government's Health and Safety Inspection Service

### 01.05.03.01 NL / Ff

The candidate can describe the options the government's Health and Safety Inspection Service has to impose sanctions

- 01.05.03.01.01 • Following an offence, to draw up a report concerning the fine for the employer/employee

## 01.06 Basic principles of environmental legislation

### 01.06.01 Basis / VOL VCA / VIL VCU

The candidate can describe the objectives of the environmental legislation

#### 01.06.01.01 Bb

The candidate can describe the objectives of the environmental legislation

- 01.06.01.01.01 • To protect man and the environment against the harmful effects of activities
- 01.06.01.01.02 • To limit emissions and waste flows
- 01.06.01.01.03 • To ensure the effective and correct removal of waste materials

### 01.06.02 VOL VCA

The candidate can describe the components that companies and employers must take action upon in order to achieve the objectives of environmental legislation

#### 01.06.02.01 Bb

The candidate can describe the components that companies and employees must take action upon in order to achieve the objectives of environmental legislation

- 01.06.02.01.01 • Amend production processes
- 01.06.02.01.02 • Thriftily and efficiently deal with energy
- 01.06.02.01.03 • Use natural resources economically and efficiently

## 01.07 Basic principles of working hours legislation

### 01.07.01 Basis / VOL VCA / VIL VCU

The candidate can describe the objectives of the working hours legislation

#### 01.07.01.01 Bb

The candidate can describe the objectives of the working hours legislation

- 01.07.01.01.01 • To delineate maximum working hours and minimum rest hours to prevent safety and health being endangered
- 01.07.01.01.02 • To promote the possibility to combine work and care tasks/ family

### 01.07.02 VOL VCA / VIL VCU

The candidate can describe the assumptions behind the working hours legislation

#### 01.07.02.01 Bb

The candidate can describe the assumptions behind the working hours legislation

- 01.07.02.01.01 • That the personal situation of the employee will be taken account of
- 01.07.02.01.02 • Coherence to the Health and Safety Policy

### 01.07.03 VOL VCA / VIL VCU

The candidate can state the people to whom working hours legislation applies

#### 01.07.03.01 NL / Ff



## Final attainment level and test criteria for VCA

The candidate can state the people to whom working hours legislation applies

01.07.03.01.01 • All employees, below a certain salary level

### 01.08 Basic principles of Health and Safety legislation related to agency work

#### 01.08.01 VOL VCA / VIL VCU

The candidate can describe the objectives of the Health and Safety aspects in the legislation related to agency work

##### 01.08.01.01 Bb

The candidate can describe the objectives of the Health and Safety aspects in the legislation related to agency work

01.08.01.01.01 • To ensure that temporary agency workers, with respect to Health and Safety at work, get the same level of protection as the other employees of the company that hires them

#### 01.08.02 VOL VCA / VIL VCU

The candidate can describe the assumptions concerning the Health and Safety legislation related to agency work

##### 01.08.02.01 Ff

The candidate can state who is responsible for the Health and Safety of the temporary agency worker when working

01.08.02.01.01 • The company that hires the worker

##### 01.08.02.02 Ff

(expired April 2011)

##### 01.08.02.03 Ff

(expired April 2011)

#### 01.08.03 VOL VCA / VIL VCU

(moved to 05.01.06.12)

### 01.09 European Directives with respect to (Dutch) national legislation

#### 01.09.01 VOL VCA / VIL VCU

The candidate can describe the relationship between European directives and Dutch national legislation

##### 01.09.01.01 Bb

The candidate can describe the relationship between European directives and national legislation

01.09.01.01.01 • A European directive must be incorporated in national legislation within a certain period

#### 01.09.02 VOL VCA / VIL VCU

The candidate knows the principles of the application of CE identification symbols

##### 01.09.02.01 Bb

The candidate can describe the principles of the use of CE marking.

01.09.02.01.01 • A CE mark must be attached by the manufacturer or importer

01.09.02.01.02 • The CE mark can be attached based on a technical file and a declaration of conformity, in which the manufacturer or importer confirms that its product conforms to the safety requirements specified in the Directive

01.09.02.01.03 • Only CE-marked equipment can be marketed

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### 01.09.03 Basis / VOL VCA / VIL VCU

The candidate can describe the significance of the CE marking and recognise the format

#### 01.09.03.01 Bb

The candidate can describe the significance of the CE marking

01.09.03.01.01 • CE marks that are applied to a product mean that one can assume that the product (e.g. equipment, machines, PPE,...) complies with respect to safety with the European Directive concerned

#### 01.09.03.02 Ff

The candidate can recognise the format of CE marking

01.09.03.02.01 • CE (logo)

## 02. Dangers, risks and prevention

### 02.01 Concepts: danger and risk

#### 02.01.01 VOL VCA / VIL VCU

The candidate can describe the concepts of dangers and risks

##### 02.01.01.01 Bb

The candidate can describe the concept of hazard

02.01.01.01.01 • A characteristic of a substance or product that can cause an incident

02.01.01.01.02 • A situation that can result in an incident

##### 02.01.01.02 Bb

The candidate can describe the concept of risk

02.01.01.02.01 • Risk = probability x effect

02.01.01.02.02 • The risk is determined by the degree of probability of a hazard causing an accident

02.01.01.02.03 • The risk is determined by the degree of damage (the consequence)

### 02.02 Recognising risks and dangers

#### 02.02.01 Basis / VOL VCA / VIL VCU

The candidate can name a number of hazards at the workplace

##### 02.02.01.01 Ff

The candidate can name a number of hazards at the workplace

02.02.01.01.01 • Height (falling)

02.02.01.01.02 • Fire

02.02.01.01.03 • Explosion

02.02.01.01.04 • Poisonous substances

02.02.01.01.05 • Noise

02.02.01.01.06 • Radiation

02.02.01.01.07 • Moving parts (e.g. being trapped, hit)

02.02.01.01.08 • Falling objects, loads

02.02.01.01.09 • Vehicles, traffic

#### 02.02.02 Basis / VOL VCA / VIL VCU

The candidate can name dangers and risks at the workplace

##### 02.02.02.01 Ff

The candidate can state possible sources of hazards at the workplace

02.02.02.01.01 • Type of work

02.02.02.01.02 • Workplace or surroundings of the workplace

02.02.02.01.03 • Equipment

02.02.02.01.04 • Products, materials worked with

02.02.02.01.05 • Behaviour of the employee

02.02.02.01.06 • Ability

##### 02.02.02.02 Ff

The candidate can state activities or conditions at the workplace that can be associated with hazards and risks

02.02.02.02.01 • Working with hazardous substances

02.02.02.02.02 • Working with dangerous tools / machines

02.02.02.02.03 • Working with high pressures

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- 02.02.02.02.04 • Working with radiation sources
- 02.02.02.02.05 • Excavation activities
- 02.02.02.02.06 • Working with electricity
- 02.02.02.02.07 • Working in the cold
- 02.02.02.02.08 • Working in the heat
- 02.02.02.02.09 • Working in noisy surroundings
- 02.02.02.02.10 • Working at height

### 02.02.03 VOL VCA / VIL VCU

The candidate can name a number of conditions that increase the risks at the workplace

#### 02.02.03.01 Ff

The candidate can name circumstances that increase the risk with respect to the workplace and the surroundings of the workplace

- 02.02.03.01.01 • Untidy workplace
- 02.02.03.01.02 • Too much or too little light
- 02.02.03.01.03 • Vibration
- 02.02.03.01.04 • Weather conditions
- 02.02.03.01.05 • Dust or contaminated air
- 02.02.03.01.06 • Working in the vicinity of radiation sources
- 02.02.03.01.07 • Traffic in the vicinity
- 02.02.03.01.08 • Working in confined spaces
- 02.02.03.01.09 • A difficult-to-access workplace
- 02.02.03.01.10 • Workplace that offers little room to manoeuvre
- 02.02.03.01.11 • Workplace with few escape routes
- 02.02.03.01.12 • Hazardous activities in the vicinity
- 02.02.03.01.13 • Complexity

## 02.03 Prevention hierarchy

### 02.03.01 VOL VCA / VIL VCU

The candidate can describe the concept of prevention

#### 02.03.01.01 Bb

The candidate can describe measures that are taken to prevent or reduce risks

- 02.03.01.01.01 • To prevent the risk increasing
- 02.03.01.01.02 • To take measures to reduce the risk
- 02.03.01.01.03 • To prevent an accident occurring
- 02.03.01.01.04 • To prevent damage to health
- 02.03.01.01.05 • To prevent environmental damage occurring

### 02.03.02 VOL VCA / VIL VCU

The candidate can describe the hierarchy of the preventative measures

#### 02.03.02.01 Ff

The candidate can name the types of preventive measures and the order in which they must be taken

- 02.03.02.01.01 • Firstly source-oriented measures: eliminating hazards, removing the cause, prevention, choosing another, safer working method
- 02.03.02.01.02 • Secondly limiting or reducing the risk: collective protection and guards, suitable

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working methods and equipment. limiting exposure in time, frequency, intensity, number of people

02.03.02.01.03 • Thirdly if risks are still present: personal protection equipment

02.03.02.01.04 • Associated measures: 1. training, information, instruction 2. identifying, warning, labelling

02.03.02.01.05 • Organisational measures: limiting exposure in time, frequency, intensity, number of people

### 02.03.03 Basis / VOL VCA / VIL VCU

The candidate can describe the way in which prevention can be tackled practically

#### 02.03.03.01 Bb

The candidate can describe the way in which prevention can be tackled practically

02.03.03.01.01 • By preventing unsafe actions and unsafe situations

#### 02.03.03.02 Bb

The candidate can describe the concept of an unsafe action

02.03.03.02.01 • An unsafe action is an action that is not carried out in accordance with the safety instructions and that can lead to an accident

#### 02.03.03.03 Bb

The candidate can describe the concept of an unsafe situation

02.03.03.03.01 • An unsafe situation is a situation in which work is carried out without complying with the conditions for safe working and that can lead to an accident

#### 02.03.03.04 Ff

The candidate can give examples of unsafe actions

02.03.03.04.01 • Working without work permits or permission in situations where this is imposed

02.03.03.04.02 • Not using the prescribed personal protection equipment

02.03.03.04.03 • Bypassing safeguards

02.03.03.04.04 • Using tools incorrectly

02.03.03.04.05 • Using broken tools

02.03.03.04.06 • Moving a load incorrectly

#### 02.03.03.05 Ff

The candidate can give examples of unsafe situations

02.03.03.05.01 • No or insufficient light

02.03.03.05.02 • No or obstructed escape routes

02.03.03.05.03 • Untidy work floors

02.03.03.05.04 • Not safeguarded or insufficiently safeguarded equipment or machines

### 02.03.04 Basis / VOL VCA / VIL VCU

The candidate can state the ways in which unsafe situations and actions can be dealt with and prioritise these

#### 02.03.04.01 Ff

The candidate can state the ways in which unsafe situations can be dealt with and prioritise these

02.03.04.01.01 • Removing the cause

02.03.04.01.02 • Screening off / safeguarding

02.03.04.01.03 • Warning

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02.03.04.01.04 • Calling in others

### 02.03.04.02 Bb

The candidate can describe the manner in which action must be taken in the event of unsafe actions

02.03.04.02.01 • Reporting to the hierarchical supervisor

02.03.04.02.02 • (Arranging) to halt the action

## 02.04 Risk management and implementing policy

### 02.04.01 VOL VCA / VIL VCU

The candidate can describe risk management

#### 02.04.01.01 Bb

(expired April 2011)

#### 02.04.01.02 Bb

The candidate can describe the various steps in a Risk Inventory and Evaluation

02.04.01.02.01 • 1. Identifying the hazards

02.04.01.02.02 • 2. Making an inventory of the risks

02.04.01.02.03 • 3. Evaluating the risks

#### 02.04.01.03 Bb

The candidate can describe the components of the risk management system

02.04.01.03.01 • Plan the policy (methods, distribution of tasks)

02.04.01.03.02 • Planning of the policy (methods, task distribution)?

Details of the policy (objectives and resources) based on an RI&E: Risk Inventory and Evaluation.

02.04.01.03.03 • Implement the policy

02.04.01.03.04 • Evaluate and adapt the policy

## 02.05 (Task) Risk Analysis and LMRA

### 02.05.01 Basis / VOL VCA / VIL VCU

The candidate can describe the concept and the objectives of (task) risk analysis

#### 02.05.01.01 Bb

The candidate can describe the concept of (job) hazard analysis

02.05.01.01.01 • An analysis of the hazards that are associated with the execution of (high-risk) tasks with respect to the health and safety of the employees

#### 02.05.01.02 Bb

The candidate can describe the objective of a (job) hazard analysis

02.05.01.02.01 • To analyse and evaluate the risks to agree control measures for the execution of a (high-risk) task or a task in a high-risk environment

### 02.05.02 VOL VCA

The candidate can name situations in which it may be necessary to create or modify a (task) risk analysis

#### 02.05.02.01 Ff

The candidate can state situations in which it may be necessary to create a (job) hazard analysis

02.05.02.01.01 • When performing tasks or activities for which no procedures are available

02.05.02.01.02 • Prior to starting new projects

02.05.02.01.03 • When purchasing new machines

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02.05.02.01.04 • For renovation or new-built projects

02.05.02.01.05 • When drawing up and evaluating procedures

02.05.02.01.06 • If prescribed in the system of permits

02.05.02.01.07 • When employing a young person, a trainee or a temporary agency worker

### 02.05.02.02 Ff

The candidate can state situations in which it is necessary to modify a (job) hazard analysis

02.05.02.02.01 • When in practice, the work plan no longer appears to be feasible

02.05.02.02.02 • People do not have the correct tools or the correct equipment

02.05.02.02.03 • The system is no longer depressurised, free of gas or is live

02.05.02.02.04 • The working conditions have changed

### 02.05.03 Basis / VOL VCA / VIL VCU

The candidate can describe the term LMRA (Last Minute Risk Analysis), its objective and the points to consider

#### 02.05.03.01 Bb

The candidate can state the points that the LMRA (Last Minute Risk Analysis) considers

02.05.03.01.01 • Prior to starting activities or a new task

02.05.03.01.02 • When working conditions change

02.05.03.01.03 • Also for routine activities

02.05.03.01.04 • Doing it yourself

#### 02.05.03.02 Bb

The candidate can describe what the term LMRA (Last Minute Risk Analysis) means

02.05.03.02.01 • LMRA is a practical method to examine at the workplace itself whether the work can be safely executed

## 02.06 Health and Safety annual action plan (H&S annual action plan)

### 02.06.01 VOL VCA / VIL VCU

The candidate can describe the concept of an H&S annual action plan and its content

#### 02.06.01.01 Bb

The candidate can describe the concept of an H&S annual action plan

02.06.01.01.01 • A written plan of execution for improving the working conditions

#### 02.06.01.02 Bb

The candidate can describe the content of the H&S annual action plan

02.06.01.02.01 • The objectives to be achieved

02.06.01.02.02 • Concrete preventive measures

02.06.01.02.03 • Equipment/ resources to be used (organisational, financial, material)

02.06.01.02.04 • Task distribution

02.06.01.02.05 • Responsible for the implementation

02.06.01.02.06 • Period

## 02.07 Communication of risks and control measures for the work floor

### 02.07.01 VOL VCA / VIL VCU

The candidate can communicate the risks and control measures to the people involved (including temporary agency workers)

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### 02.07.01.01 Ff

The candidate can state the general guidelines with respect to communicating the risks and control measures to the people involved

02.07.01.01.01 • Prior to commencing the activities

02.07.01.01.02 • Preferably provide communication at the workplace

### 02.07.01.02 Ff

The candidate can state examples of communication concerning the risks and control measures to the people involved

02.07.01.02.01 • Meeting with customers and contractors

02.07.01.02.02 • Discussions with supervisors and operational employees

02.07.01.02.03 • Information transfer (briefing) at a shift change

02.07.01.02.04 • Toolbox meeting with operational employees

### 02.07.02 VOL VCA / VIL VCU

The candidate can describe the general guidelines with respect to communicating risks and control measures to temporary agency workers

#### 02.07.02.01 Bb

The candidate can describe the general guidelines with respect to communicating risks and control measures to temporary agency workers

02.07.02.01.01 • General basic information related to the risks during the introduction given to the temporary agency worker by the intermediary: - regarding the activities and the circumstances - regarding the job and the workplace - the hiring company and the temporary employment agency have a shared duty with respect to providing information to the temporary agency worker, the temporary employment agency must provide the temporary agency worker with information about the workplace and the job requirements

02.07.02.01.02 • Specifically workplace-related: - during the initial introduction of the temporary agency worker by the hiring company - preferably at the workplace - preferably by the involved operational supervisor of the hiring company - prior to commencing the activities

## 02.08 Safety aspects in work planning

### 02.08.01 VOL VCA / VIL VCU

The candidate can describe the safety aspects in work planning

#### 02.08.01.01 Bb

The candidate can describe the objective of the work planning

02.08.01.01.01 • To determine a working method that is safe and does not cause any health damage

#### 02.08.01.02 Ff

The candidate can state the elements that must be observed during work planning to allow the work to progress safely

02.08.01.02.01 • Time planning for the entire work

02.08.01.02.02 • The order in which the activities can be safely carried out

02.08.01.02.03 • Which materials, tools and machines are required to perform the job safely

02.08.01.02.04 • The required time and measures that are needed to perform the work in a healthy and safe manner

## 02.09 High-risk activities

### 02.09.01 VOL VCA / VIL VCU



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The candidate can describe what high-risk activities are

### 02.09.01.01 Bb

The candidate can describe what high-risk activities are

02.09.01.01.01 • Activities in a high-risk environment

02.09.01.01.02 • Performing high-risk tasks

### 02.09.01.02 Bb

The candidate can describe when a task is considered to be of high risk

02.09.01.02.01 • Within the company, the high-risk tasks are recorded based on the RI&E and the (job) hazard analysis

## 02.09.02 VOL VCA / VIL VCU

The candidate can name the points to pay attention to when high-risk activities are being carried out

### 02.09.02.01 Bb

The candidate can describe the rules of conduct that apply prior to the commencement of high-risk activities

02.09.02.01.01 • Availability and knowledge of the work permit

02.09.02.01.02 • Availability and knowledge of the (Job) Hazard Analysis

02.09.02.01.03 • References to precautionary measures in the company regulations of the customer

02.09.02.01.04 • Only starting work when all of the conditions are met

02.09.02.01.05 • Carrying out a Last Minute Risk Analysis (LMRA)

### 02.09.02.02 Ff

The candidate can state the rules of conduct in the event that the work plan is deviated from

02.09.02.02.01 • Have the activities halted

02.09.02.02.02 • Modify the (job) hazard analysis and discuss it with all employees involved

02.09.02.02.03 • Discuss the modified (job) hazard analysis with the responsible supervisor and/or customer and if necessary the prevention officer/ safety expert

### 02.09.02.03 Ff

The candidate can state the rules of conduct for the supervisor during the execution of high-risk activities

02.09.02.03.01 • Regularly check whether the work is being performed in accordance with the agreements made

02.09.02.03.02 • Make use of the agreed control measures

02.09.02.03.03 • Be sufficiently present

02.09.02.03.04 • Intervene if the agreements that have been made are not adhered to

## 02.09.03 VIL VCU

The candidate can describe the approach of the intermediary in the event of posting employees for high-risk tasks

### 02.09.03.01 Ff

The candidate can describe the approach of the intermediary in the event of posting employees for high-risk tasks

02.09.03.01.01 • Information to the temporary agency worker regarding the high-risk tasks

02.09.03.01.02 • Agreements with the hiring company about how the temporary agency worker

## Final attainment level and test criteria for VCA

will be informed (instructions, training, tests, etc)

## 03. Accidents: causes and prevention

### 03.01 Concepts

#### 03.01.01 Basis / VOL VCA / VIL VCU

The candidate can describe the concept of an accident and the terms derived from it

##### 03.01.01.01 BE / Bb

The candidate can describe the concept of occupational accident

- 03.01.01.01.01 • An undesired event during the work with a resulting injury

##### 03.01.01.02 Bb

The candidate can describe the concept of an accident

- 03.01.01.02.01 • An undesired event that happens during the work resulting in damage (to material, the environment or loss of time) and/or injury

##### 03.01.01.03 Bb

The candidate can describe the concept of a near accident

- 03.01.01.03.01 • An undesired event that does not result in damage or injury, which under somewhat different conditions could have led to a severe accident

##### 03.01.01.04 Bb

The candidate can describe the concept of an incident

- 03.01.01.04.01 • An undesired event with or without damage or injury

### 03.02 Accident theory

#### 03.02.01 Basis / VOL VCA / VIL VCU

The candidate can name the two direct causes of an accident or incident

##### 03.02.01.01 Ff

The candidate can state the two direct causes of an accident or incident

- 03.02.01.01.01 • Unsafe action

- 03.02.01.01.02 • Unsafe situation

#### 03.02.02 VOL VCA / VIL VCU

The candidate can describe the causes and consequences of an accident, using the cause-and-effect series to do so

##### 03.02.02.01 Ff

The candidate can state the sequential phases of the cause-and-effect series

- 03.02.02.01.01 • 1. Background (organisation)

- 03.02.02.01.02 • 2. Human failure

- 03.02.02.01.03 • 3. Unsafe actions and/or situations

- 03.02.02.01.04 • 4. Accident

- 03.02.02.01.05 • 5. Injury and/or damage

##### 03.02.02.02 Bb

The candidate can describe the possible points of attention of the cause-and-effect series for the policy to be adopted in order to reduce the number of accidents

- 03.02.02.02.01 • An accident is the result of various causes at various levels within the company, the policy to be adopted must therefore focus on various levels (including management, supervisors, operational employees)

- 03.02.02.02.02 • The causes can originate at various levels within the company (including management, supervisory and operational employees)

**03.02.03 VOL VCA / VIL VCU**

The candidate can describe the accident pyramid

**03.02.03.01 Bb**

The candidate can describe the accident pyramid

- 03.02.03.01.01 • Many high-risk situations and actions can finally lead to an accident involving very serious injury or a fatality

**03.02.04 VOL VCA / VIL VCU**

The candidate can describe the underlying factors and consequences for the policy to be adopted in order to reduce the number of accidents

**03.02.04.01 Ff**

The candidate can state the causes of unsafe actions or unsafe situations

- 03.02.04.01.01 • Unsafe actions or unsafe situations can arise due to human error
- 03.02.04.01.02 • Human error is promoted by: ?
  - Person-related factors ?
  - Task-related factors

**03.02.04.02 Ff**

The candidate can give examples of person-related factors that can lead to an incident

- 03.02.04.02.01 • Insufficient knowledge
- 03.02.04.02.02 • Insufficient experience
- 03.02.04.02.03 • Insufficient motivation
- 03.02.04.02.04 • Insufficient attention

**03.02.04.03 Ff**

The candidate can give examples of task-related factors that can lead to an incident

- 03.02.04.03.01 • Insufficient and/or incorrect management and supervision
- 03.02.04.03.02 • Incorrect working method
- 03.02.04.03.03 • Having insufficient time for the activities
- 03.02.04.03.04 • Required equipment and/or tools not being present
- 03.02.04.03.05 • Equipment and/or tools being not effectively maintained

**03.02.04.04 Bb**

(expired April 2011)

**03.02.04.05 Bb**

The candidate can describe the consequences the accident pyramid has for the policy to be adopted in order to reduce the number of accidents

- 03.02.04.05.01 • Preventing and tackling ALL unsafe actions and ALL unsafe situations leads to fewer accidents

**03.02.04.06 Bb**

The candidate can describe the possible action points for the management that arise from the accident theories

- 03.02.04.06.01 • Establishing a (long-term) plan to improve the working conditions
- 03.02.04.06.02 • Delegating tasks and powers of authority to departments and employees in the company
- 03.02.04.06.03 • Arranging the correct organisation of the working conditions policy
- 03.02.04.06.04 • Arranging an effective meeting structure with respect to the working conditions

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and responsibilities

03.02.04.06.05 • Working out the working conditions policy in procedures and regulations

03.02.04.06.06 • Arranging sufficient training and instruction

### 03.02.04.07 Bb

The candidate can describe the possible action points for the operational supervisor that arise from accident theories

03.02.04.07.01 • Supervising compliance with procedures and regulations

03.02.04.07.02 • Carrying out periodical inspections

03.02.04.07.03 • Giving instructions and training regarding health risks in the workplace

03.02.04.07.04 • The systematic reporting of incidents

03.02.04.07.05 • Planned approach to tackling unsafe actions and situations

03.02.04.07.06 • Discussing problems and complaints related to the working conditions policy during the department and progress meetings

03.02.04.07.07 • Regular evaluation of the results of implemented improvement points resulting from unsafe actions and situations

## 03.03 Accident prevention

### 03.03.01 VOL VCA / VIL VCU

The candidate can describe preventative measures relating to the following aspects: the people, the organisation, the technology and the surroundings

#### 03.03.01.01 Ff

The candidate can name the aspects that prevention must focus on

03.03.01.01.01 • The human being

03.03.01.01.02 • The organisation

03.03.01.01.03 • The technology

03.03.01.01.04 • The surroundings

#### 03.03.01.02 Ff

The candidate can give an example of a preventive measure related to the aspect of the human being

03.03.01.02.01 • Obtaining knowledge

03.03.01.02.02 • Possessing skills

03.03.01.02.03 • Behaviour, for instance being concentrated when working, tidy workplace

#### 03.03.01.03 Ff

The candidate can give an example of a preventive measure related to the aspect of the organisation

03.03.01.03.01 • Effective working methods

03.03.01.03.02 • Supervision by supervisors

#### 03.03.01.04 Ff

The candidate can give an example of a preventive measure related to the aspect of the technology

03.03.01.04.01 • Use of machines that have a safe technical design (CE marking)

03.03.01.04.02 • Maintenance of tools

03.03.01.04.03 • Ergonomic design

#### 03.03.01.05 Ff

The candidate can give an example of a preventive measure related to the aspect of

the surroundings

- 03.03.01.05.01 • Safe layout of the workplace that offers optimum protection against load from the surroundings

### **03.04 Dealing with incidents**

#### **03.04.01 Basis / VOL VCA / VIL VCU**

The candidate can name the steps needed to avoid recurrences of accidents

##### **03.04.01.01 Ff**

The candidate can state the steps needed to avoid recurrences of accidents

- 03.04.01.01.01 • Act immediately
- 03.04.01.01.02 • Report
- 03.04.01.01.03 • Record
- 03.04.01.01.04 • Investigate
- 03.04.01.01.05 • Action plan (plan of approach)

#### **03.04.02 Basis / VOL VCA / VIL VCU**

The candidate can describe how to act in the event of accidents, near accidents and unsafe situations and unsafe actions

##### **03.04.02.01 Bb**

The candidate can describe how to act in the event of accidents

- 03.04.02.01.01 • The accident must be reported to the immediate supervisor
- 03.04.02.01.02 • Accompany the victim to the medical department/ service
- 03.04.02.01.03 • Direct measures to avoid recurrence
- 03.04.02.01.04 • Follow the internal instructions

##### **03.04.02.02 Bb**

The candidate can describe how to act in the event of near accidents and unsafe situations and actions

- 03.04.02.02.01 • Take direct measures (identify situations / halt or arrange to halt actions)
- 03.04.02.02.02 • Report this to the supervisor

### **03.05 Recording incidents**

#### **03.05.01 VOL VCA / VIL VCU**

The candidate can describe why and how accidents, near accidents and unsafe situations and unsafe actions must be recorded

##### **03.05.01.01 Bb**

The candidate can describe why and how accidents, near accidents and unsafe situations and actions must be recorded

- 03.05.01.01.01 • Record details for the policy of the company
- 03.05.01.01.02 • Learn lessons from it and take measures to prevent repetition

##### **03.05.01.02 Bb**

(expired April 2014)

### **03.06 Accident investigations**

#### **03.06.01 VOL VCA / VIL VCU**

The candidate can state the objective of accident investigations

##### **03.06.01.01 Ff**

The candidate can state the objective of accident investigations

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- 03.06.01.01.01 • To identify the factors that caused the accident to be able to formulate proposals to avoid the recurrence of similar accidents in the future

### 03.06.02 VOL VCA / VIL VCU

The candidate can state the basic components of a proper accident investigation

#### 03.06.02.01 Ff

The candidate can state the basic components of an effective accident investigation

- 03.06.02.01.01 • Investigate at the site of the accident
- 03.06.02.01.02 • Gather facts and data regarding what led to the accident
- 03.06.02.01.03 • Interview people involved and witnesses
- 03.06.02.01.04 • Analysis of investigation results
- 03.06.02.01.05 • Final report containing recommendations / action points to avoid recurrence

### 03.06.03 VOL VCA

The candidate can describe the points that the investigation must pay attention to at the location of the accident

#### 03.06.03.01 Bb

The candidate can describe the points that the investigation must pay attention to at the location of the accident

- 03.06.03.01.01 • As soon as possible
- 03.06.03.01.02 • Make sketches, drawings and photos
- 03.06.03.01.03 • Documents that are present
- 03.06.03.01.04 • Look for special circumstances, for instance the weather

### 03.06.04 VOL VCA

The candidate can describe the points to pay attention to when gathering facts and data about what caused the accident

#### 03.06.04.01 Bb

The candidate can describe the points to pay attention to when gathering facts and data about what caused the accident

- 03.06.04.01.01 • Take samples at the site of the accident
- 03.06.04.01.02 • Store the collected material at a suitable location
- 03.06.04.01.03 • Record how and where the material was obtained

### 03.06.05 VOL VCA

The candidate can describe points to pay attention to when interviewing witnesses and those involved

#### 03.06.05.01 Bb

The candidate can describe points to pay attention to when interviewing witnesses and those involved

- 03.06.05.01.01 • Record who must be interviewed
- 03.06.05.01.02 • Interview every victim and the witnesses
- 03.06.05.01.03 • Avoid corrupting witness information
- 03.06.05.01.04 • Search for causes, not for guilty parties
- 03.06.05.01.05 • Record witness statements
- 03.06.05.01.06 • Feed the statements back to the witnesses

### 03.06.06 VOL VCA / VIL VCU

The candidate can describe the points to pay attention to in the final report

**03.06.06.01 Bb**

The candidate can describe the points to pay attention to in the final report

03.06.06.01.01 • Description, facts and details

03.06.06.01.02 • Analysis

03.06.06.01.03 • Targeted recommendations to avoid recurrence

**03.06.07 VIL VCU**

The candidate knows who is involved in handling the occupational accidents involving temporary agency workers

**03.06.07.01 Ff**

The candidate knows who is responsible for the accident investigations

03.06.07.01.01 • The hiring company is responsible for the accident investigations

**03.06.07.02 BE / Ff**

The candidate knows who is responsible for the accident insurance

03.06.07.02.01 • The temporary employment agency is responsible for the accident insurance

**03.06.07.03 NL / Ff**

The candidate knows who is responsible for the absence due to illness

03.06.07.03.01 • The temporary employment agency is responsible for handling absence through illness

**03.06.07.04 NL / Bb**

The candidate can describe the objective of the Wet Verbetering Poortwachter (Eligibility for Permanent Invalidation Benefit (Restrictions) Act)

03.06.07.04.01 • To improve the opportunities for reintegration of sick employees within or outside of the company

**03.06.07.05 NL / Bb**

The candidate can describe the obligations that the temporary employment agency has within the framework of the Eligibility for Permanent Invalidation Benefit (Restrictions) Act

03.06.07.05.01 • To draw up and execute a plan of approach for the reintegration of the ill employee

03.06.07.05.02 • If the temporary employment agency is negligent with respect to the plan of approach, the obligation to pay wages can be extended by one year

**03.06.08 VOL VCA / VIL VCU**

The candidate can describe how to act in the event of incidents, accidents, near accidents and unsafe situations and actions

**03.06.08.01 Ff**

The candidate knows who must report a serious occupational accident involving a temporary agency worker to the government's Health and Safety Inspection Service

03.06.08.01.01 • The hiring company is obliged to report occupational accidents involving temporary agency workers to the government's Health and Safety Inspection Service

**03.07 Plan of approach**

**03.07.01 VOL VCA / VIL VCU**

The candidate can describe the points to pay attention to in the plan of approach



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### 03.07.01.01 Bb

The candidate can describe the concept of a plan of approach

- 03.07.01.01.01 • A written report of the results of the Risk Inventory and Evaluation or Job Hazard Analysis (JHA) and the measures that the work floor will take

### 03.07.01.02 Bb

The candidate can describe the objective of the plan of approach

- 03.07.01.02.01 • To ensure that the results of the investigation lead to the implementation of effective measures
- 03.07.01.02.02 • To ensure that recurrence of incidents is avoided

### 03.07.01.03 Bb

The candidate can describe the contents of the plan of approach

- 03.07.01.03.01 • The measures to take
- 03.07.01.03.02 • The required resources, people to employ and any costs
- 03.07.01.03.03 • Period for implementation
- 03.07.01.03.04 • Person responsible for the implementation
- 03.07.01.03.05 • Follow up
- 03.07.01.03.06 • Evaluation of measures

## 04. Safety conduct

### 04.01 Conduct and safety

#### 04.01.01 VOL VCA / VIL VCU

The candidate can describe the influence of human behaviour on safe working

##### 04.01.01.01 Bb

The candidate can describe why responding to behaviour must form part of the HSE policy

04.01.01.01.01 • Behaviour or the acceptance of behaviour is an important cause of accidents

04.01.01.01.02 • After the policy focused on technology and organisation, the human factor is addressed through 'behaviour'

##### 04.01.01.02 Ff

The candidate can state causes of unsafe behaviour

04.01.01.02.01 • Tolerating violations, lack of leadership

04.01.01.02.02 • Lack of knowledge/ information (not knowing)

04.01.01.02.03 • Incorrectly assigning tasks (lack of skill, not being able to)

04.01.01.02.04 • Unwillingness (not wanting to)

04.01.01.02.05 • Conflicting objectives/ assignments

04.01.01.02.06 • Lack of example function

##### 04.01.01.03 Ff

The candidate can state policy elements that influence human behaviour so that work can be done safely

04.01.01.03.01 • Policy focused on better safety performance

04.01.01.03.02 • Clearly formulated assignment

04.01.01.03.03 • Clarity regarding desired and undesired behaviour

04.01.01.03.04 • Clarity about the priority of safe working

04.01.01.03.05 • Sanction and reward policy

04.01.01.03.06 • Communication and awareness campaigns

04.01.01.03.07 • Company culture

##### 04.01.01.04 Bb

The candidate can describe why the role of the supervisor is important for human behaviour

04.01.01.04.01 • The supervisor determines the working method

04.01.01.04.02 • The supervisor supervises

04.01.01.04.03 • The supervisor has the required information about the employees, the work and the circumstances

##### 04.01.01.05 Ff

The candidate can name elements of the organisation that influence human behaviour

04.01.01.05.01 • Clear meeting structure

04.01.01.05.02 • Safety behaviour observations

04.01.01.05.03 • The right man at the right place

04.01.01.05.04 • A proper introduction procedure

04.01.01.05.05 • Correctly dealing with questions and complaints

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- 04.01.01.05.06 • Arranging the correct provisions, including sanitary facilities, canteen

### 04.01.02 VOL VCA / VIL VCU

The candidate can describe general rules of conduct for safe working

#### 04.01.02.01 Bb

The candidate can describe general rules of behaviour for safe working

- 04.01.02.01.01 • Employees comply with the safety regulations
- 04.01.02.01.02 • Employees call each other to account for unsafe actions
- 04.01.02.01.03 • Employees immediately intervene in unsafe situations
- 04.01.02.01.04 • Employees ask questions in the event of unclear situations
- 04.01.02.01.05 • Setting a good example
- 04.01.02.01.06 • Responding consistently
- 04.01.02.01.07 • Supervising and correcting
- 04.01.02.01.08 • Also being critical towards yourself
- 04.01.02.01.09 • Gaining advice in unclear situations
- 04.01.02.01.10 • Taking into account the opinions, proposals, wishes and advice of your employees
- 04.01.02.01.11 • Giving clear and convincing instructions to employees (how and why)

### 04.01.03 Basis / VOL VCA / VIL VCU

The candidate can describe the behaviours that are seen as characteristic of safe working and why

#### 04.01.03.01 Ff

The candidate can state behaviour that promotes safe working

- 04.01.03.01.01 • Taking care of one's own health and safety and that of other people involved
- 04.01.03.01.02 • A positive attitude
- 04.01.03.01.03 • Adhering to the safety regulations and following up instructions
- 04.01.03.01.04 • Calling other employees to account for unsafe actions
- 04.01.03.01.05 • Reporting unsafe situations and incidents and intervening appropriately
- 04.01.03.01.06 • Attention to personal hygiene, order and tidiness

#### 04.01.03.02 Bb

The candidate can describe the adverse influence of alcohol and drug use on safe working

- 04.01.03.02.01 • Reduced alertness
- 04.01.03.02.02 • Reduced or problematic working
- 04.01.03.02.03 • Less effective assessment of situations
- 04.01.03.02.04 • Breaking down the barriers to displaying unwanted behaviour
- 04.01.03.02.05 • Overestimation of one's own capabilities
- 04.01.03.02.06 • Increased work load on colleagues and disruptions in the organisation of the work

#### 04.01.03.03 Bb

The candidate can describe the behaviour that is expected with respect to alcohol and drug use to be able to work safely

- 04.01.03.03.01 • To withhold from alcohol and drug use during work or use that can influence the work
- 04.01.03.03.02 • To inform the supervisor of problematic use and withhold from dangerous

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activities or work that could entail a hazard to others

04.01.03.03.03 • Searching for help in the event of chronic, problematic use

### 04.02 Influencing behaviour

#### 04.02.01 VOL VCA

The candidate can describe the approach to improving health and safety at work by influencing behaviour

##### 04.02.01.01 Ff

The candidate can state the basic principles that can reduce accidents by influencing behaviour

04.02.01.01.01 • Promoting safe behaviour

04.02.01.01.02 • Curbing unsafe behaviour

##### 04.02.01.02 Bb

The candidate can describe two strategies to stimulate safe behaviour

04.02.01.02.01 • Emphasise the success of safe behaviour

04.02.01.02.02 • Reduce the disadvantages of safe behaviour

##### 04.02.01.03 Bb

The candidate can describe two strategies to curb unsafe behaviour

04.02.01.03.01 • Make clear the consequences of unsafe working

04.02.01.03.02 • Make the opportunities for unsafe behaviour more difficult

##### 04.02.01.04 Bb

The candidate can describe ways to emphasise the success of safe behaviour

04.02.01.04.01 • Regularly discuss safety subjects in a positive way

04.02.01.04.02 • Give clear and convincing instructions to employees

04.02.01.04.03 • Positively assess the safe behaviour of employees during their appraisal

04.02.01.04.04 • Set a good example

04.02.01.04.05 • View safe working as being professional

##### 04.02.01.05 Bb

The candidate can describe ways of reducing the drawbacks associated with safe working practices

04.02.01.05.01 • Ensure that there are usable safety regulations

04.02.01.05.02 • Ensure proper access to safety provisions

04.02.01.05.03 • Provide comfortable personal protection equipment

04.02.01.05.04 • Ensure that there is sufficient time to be able to work safely

##### 04.02.01.06 Bb

The candidate can describe ways to make clear the consequences of unsafe working

04.02.01.06.01 • Provide information about the dangers

04.02.01.06.02 • Show and discuss accidents and their consequences

04.02.01.06.03 • Give instructions about preventing unsafe actions and unsafe situations

##### 04.02.01.07 Bb

The candidate can describe ways to make it more difficult to display unsafe behaviour

04.02.01.07.01 • Install fences and enclosures

04.02.01.07.02 • Ensure that equipment only operates when the associated safety devices are

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used

04.02.01.07.03 • Remove poor tools and materials

04.02.01.07.04 • Impose sanctions on unsafe behaviour

### 04.02.02 VOL VCA

(expired April 2011)

### 04.02.03 VIL VCU

The candidate can describe the tasks of the intermediary related to the promotion of safe working and improving the mentality of the temporary agency workers

#### 04.02.03.01 Bb

The candidate can describe the tasks of the intermediary related to the promotion of safe working by the temporary agency workers

04.02.03.01.01 • The correct selection for the function with respect to: the request from the hiring company, the job content and the capabilities and experience of the temporary agency worker

04.02.03.01.02 • Verification of the basic knowledge regarding health and safety of the temporary agency worker (e.g. Basic safety VCA)

04.02.03.01.03 • Evaluation of the temporary agency worker after they he/she has performed the assignment

04.02.03.01.04 • Information provided to the temporary agency worker concerning the necessity, the advantages and the importance of safe working

#### 04.02.03.02 Bb

The candidate can describe ways in which the mentality of the temporary agency worker can be improved

04.02.03.02.01 • Try to obtain as much insight as possible into the nature and the capabilities of the temporary agency worker

04.02.03.02.02 • Do not assign jobs to the temporary agency worker that require him/her working above or below his/her capabilities

04.02.03.02.03 • Take into account the opinions, proposals, wishes and advice of the temporary agency worker himself

04.02.03.02.04 • Inquire into any negative working experiences

04.02.03.02.05 • Inform the temporary agency worker about how you and the hiring company think about him, including his performance in the area of safety

04.02.03.02.06 • Evaluate the temporary agency worker as objectively as possible

04.02.03.02.07 • Ensure that when corrective action is taken, the self esteem of the temporary agency worker as a professional or as a human being is not affected

04.02.03.02.08 • Ensure that there is a healthy amount of self criticism

04.02.03.02.09 • Prevent emotional situations developing where possible

04.02.03.02.10 • Do not be 'bossy' as an intermediary

04.02.03.02.11 • Try to listen attentively to what someone else has to say to you

## 04.03 Order and tidiness (good housekeeping)

### 04.03.01 Basis / VOL VCA / VIL VCU

The candidate can describe the influence of order and tidiness on safe working

## Final attainment level and test criteria for VCA

### 04.03.01.01 Bb

The candidate can describe the influence of order and tidiness on safe working

- 04.03.01.01.01 • Prevention of incidents
- 04.03.01.01.02 • Prevention of contamination, environmental damage
- 04.03.01.01.03 • Higher efficiency, time benefit
- 04.03.01.01.04 • More pleasant working environment, positive influence on motivation
- 04.03.01.01.05 • Prevention of loss of tools and materials

### 04.03.01.02 Ff

The candidate can give examples of order and tidiness (good housekeeping)

- 04.03.01.02.01 • Clearing up the area
- 04.03.01.02.02 • Removing/ storing residual material
- 04.03.01.02.03 • Storage system for tools and materials
- 04.03.01.02.04 • Hanging up cables (safety hooks) or working them away
- 04.03.01.02.05 • Good layout of the workshop/ yard

## 04.04 Stumbling, slipping and tripping

### 04.04.01 Basis / VOL VCA / VIL VCU

The candidate can state the causes of stumbling, slipping and tripping

#### 04.04.01.01 Ff

The candidate can state the causes of stumbling, slipping and tripping

- 04.04.01.01.01 • An uneven or loose surface
- 04.04.01.01.02 • Small difference in height
- 04.04.01.01.03 • Larger height differences
- 04.04.01.01.04 • Causes related to the limitations of the human body, such as a step that is too high
- 04.04.01.01.05 • Loose tiles
- 04.04.01.01.06 • Running
- 04.04.01.01.07 • Slippery floors, polished floors
- 04.04.01.01.08 • Unsuitable shoes

### 04.04.02 Basis / VOL VCA / VIL VCU

The candidate can describe methods and measures to take to avoid stumbling, slipping and tripping

#### 04.04.02.01 Bb

The candidate can describe source based methods and measures to prevent the hazards when moving by foot

- 04.04.02.01.01 • Design: in the design and the preparations attention must be paid to preventing unsafe situations
- 04.04.02.01.02 • Good housekeeping: ensure an orderly and tidy workplace
- 04.04.02.01.03 • Correct unsafe situations as quickly as possible
- 04.04.02.01.04 • Pay adequate attention when moving by foot
- 04.04.02.01.05 • Do not carry objects that obstruct the sight
- 04.04.02.01.06 • Follow the planned routes and paths
- 04.04.02.01.07 • Wear suitable shoes

#### 04.04.02.02 Bb

The candidate can describe methods and measures to control the hazards when

## Final attainment level and test criteria for VCA

### moving by foot

- 04.04.02.02.01 • By separating man and hazardous situations by using physical fencing
- 04.04.02.02.02 • Suitable lighting

## 05. Tasks, rights, duties and discussions

### 05.01 Tasks, rights and duties of the employer and employees

#### 05.01.01 VOL VCA / VIL VCU

The candidate can name the general duties of the employer

##### 05.01.01.01 Ff

The candidate can state the general obligations of the employer

- 05.01.01.01.01 • To promote the health, safety and well-being at work of the employees by adopting a prevention policy integrated in the company policy
- 05.01.01.01.02 • To plan the prevention and the implementation of the policy using a systematic approach (drawing up and implementing an overall prevention plan and annual action plan)
- 05.01.01.01.03 • To execute a (written) risk analysis
- 05.01.01.01.04 • To consult experts (internal and external prevention service)
- 05.01.01.01.05 • To consult with the employees
- 05.01.01.01.06 • Provide effective protective equipment and monitor that it is used
- 05.01.01.01.07 • To abstain from any form of violence, harassment or undesired sexual behaviour in the workplace
- 05.01.01.01.08 • To investigate serious occupational accidents and report them to the government's Health and Safety Inspection Service
- 05.01.01.01.09 • To take effective measures to ensure assistance and evacuation in the event of calamities
- 05.01.01.01.10 • Arranging a suitable introduction, information, training and instructions
- 05.01.01.01.11 • To monitor the compliance with instructions
- 05.01.01.01.12 • To take the necessary measures for the health and safety of third parties in the workplace

##### 05.01.01.02 BE / Ff

The candidate can describe the obligations of the employer with respect to occupational accident insurance

- 05.01.01.02.01 • To take out occupational accident insurance for all employees

#### 05.01.02 VOL VCA / VIL VCU

The candidate can name the body to which serious working accidents must be notified

##### 05.01.02.01 Ff

The candidate can name the body to which serious occupational accidents must be notified

- 05.01.02.01.01 • The government's Health and Safety Inspection Service

##### 05.01.02.02 BE / Ff

(expired April 2014)

#### 05.01.03 Basis / VOL VCA / VIL VCU

The candidate can name the general duties of the employee

##### 05.01.03.01 Ff

The candidate can state the general obligations of the employee

- 05.01.03.01.01 • To take care of one's own health and safety and that of other people involved
- 05.01.03.01.02 • To correctly use and take care of the personal protection equipment
- 05.01.03.01.03 • To correctly use machines, appliances, tools, hazardous substances, means of



## Final attainment level and test criteria for VCA

transport and other equipment

05.01.03.01.04 • To report incidents to the supervisor

05.01.03.01.05 • To report serious and immediate danger to health and safety to the supervisor

05.01.03.01.06 • To collaborate with the employer and the prevention service in the area of promoting welfare at work

05.01.03.01.07 • To positively contribute to the prevention policy

05.01.03.01.08 • To abstain from any form of violence, harassment or undesired sexual behaviour in the workplace

05.01.03.01.09 • To follow training

05.01.03.01.10 • To follow information

05.01.03.01.11 • To follow instructions

05.01.03.01.12 • To not change or remove protective devices and to use them in the correct way

### 05.01.04 Basis / VOL VCA / VIL VCU

The candidate can name the general rights of the employer in the context of the H&S legislation

#### 05.01.04.01 Ff

The candidate can state the general rights of the employee

05.01.04.01.01 • The right to information and education

05.01.04.01.02 • The right to interrupt the work in the event of a threatening or serious danger to people

05.01.04.01.03 • The right to a healthy and safe working environment

#### 05.01.04.02 Bb

The candidate can describe what he must do in the event of serious or immediate danger

05.01.04.02.01 • To report the situation immediately to the supervisor

05.01.04.02.02 • To stop work and/ or ensure your own safety

05.01.04.02.03 • Taking into account his technical knowledge and the available resources, to personally take appropriate measures to prevent the consequences of such danger

### 05.01.05 VIL VCU

The candidate can describe the specific distribution of tasks and responsibilities of the hiring company and the temporary employment agency

#### 05.01.05.01 Bb

The candidate can describe the statutory liabilities with respect to health and safety

05.01.05.01.01 • Relationships between the hiring company, temporary agency worker and temporary employment agency

05.01.05.01.02 • The hiring company is responsible for enforcing the health and safety legislation

05.01.05.01.03 • The temporary employment agency has specific tasks: information to the temporary agency worker, medical supervision

05.01.05.01.04 • The temporary employment agency is responsible for the occupational accident insurance

#### 05.01.05.02 BE / Bb

## Final attainment level and test criteria for VCA

The candidate can describe the objective of the job description form

05.01.05.02.01 • To exchange information between the hiring company and the temporary employment agency

05.01.05.02.02 • To exchange information between the medical services of the hiring company and the temporary employment agency

05.01.05.02.03 • To exchange information between the temporary employment agency and temporary agency worker

### 05.01.05.03 BE / Ff

The candidate knows the procedure related to the use of the job description form

05.01.05.03.01 • The hiring company fills in the form

05.01.05.03.02 • If requested, the form is provided to the temporary employment agency

05.01.05.03.03 • Selection of the temporary agency worker

05.01.05.03.04 • Additional agreements related to the training for using the personal protection equipment

05.01.05.03.05 • Agreements related to initial introduction

05.01.05.03.06 • The temporary agency worker receives information using the job description form

### 05.01.05.04 BE / Ff

The candidate knows which sections are present on the job description form

05.01.05.04.01 • Identification of the hiring company

05.01.05.04.02 • Job description identification number

05.01.05.04.03 • Job or position characteristics

05.01.05.04.04 • Work clothing and protective equipment

05.01.05.04.05 • Mandatory health monitoring

05.01.05.04.06 • Measures taken in relation to maternity protection

05.01.05.04.07 • Dates of advice from committee for prevention and protection at work, internal services prevention-consultant and prevention consultant-company doctor

05.01.05.04.08 • Identification of the temporary employment agency

05.01.05.04.09 • Introduction by the user

### 05.01.05.05 NL / Ff

The candidate can indicate the difference between the formal and the actual employer

05.01.05.05.01 • The formal employer actually employs the employee

05.01.05.05.02 • The actual employer is the one under whose authority the temporary agency worker works

### 05.01.05.06 NL / Ff

The candidate can indicate who is responsible for the working conditions in the event of temporary work

05.01.05.06.01 • The actual employer, therefore the hiring company, is responsible for the working conditions

### 05.01.05.07 NL / Ff

The candidate knows how the statutory liability with respect to health and safety is arranged

05.01.05.07.01 • In the event of temporary work, there is a triangular relationship: the temporary

## Final attainment level and test criteria for VCA

employment agency, the hiring company and the temporary agency worker

05.01.05.07.02 • The temporary employment agency is liable with respect to the duty to pass on information

05.01.05.07.03 • The hiring company, as the actual employer, is liable for the working conditions of the temporary agency worker

### 05.01.06 VIL VCU

The candidate can describe the tasks, rights, obligations and authorisation of the intermediaries and supervisors when assigning a temporary worker through a VCU organisation

#### 05.01.06.01 Ff

The candidate can specify the Health and Safety aspects that are important when assigning a temporary worker

05.01.06.01.01 • Health and Safety risks and management measures for the temporary jobs

05.01.06.01.02 • The procedure to be followed for applications for temporary workers and for recording agreements on Health and Safety aspects (instruction, information, personal protective equipment, training, experience)

05.01.06.01.03 • Requesting the requisite Health and Safety documents and being able to interpret them properly - for example, the results of a risk analysis, Health and Safety rules and regulations, professional competence

05.01.06.01.04 • Carefully selecting temporary workers

05.01.06.01.05 • Providing information to temporary worker(s) about Health and Safety aspects and agreements made with the user enterprise

05.01.06.01.06 • The procedure to be followed in the case of a serious accident with temporary workers

#### 05.01.06.02 Ff

The candidate can specify the elements that the temporary worker's dossier must contain

05.01.06.02.01 • Personal data, social security data, work permits

05.01.06.02.02 • Copy of an identification document

05.01.06.02.03 • Copies of relevant qualifications related to professional training, follow-up training courses, training courses for hazardous activities

05.01.06.02.04 • Work experience

05.01.06.02.05 • Copies or evidence of requisite valid certificates/credentials/diplomas

05.01.06.02.06 • Evaluations, memorandums with respect to temporary work, incidents, etc.

05.01.06.02.07 • Job-oriented limitations

05.01.06.02.08 • Linguistic competence

05.01.06.02.09 • Evidence of medical suitability (where applicable)

05.01.06.02.10 • Copy of driving licence (where applicable)

#### 05.01.06.03 Ff

The candidate can specify the necessary points of focus to be recorded when the user enterprise submits an application

05.01.06.03.01 • Job name

05.01.06.03.02 • Place, department and working environment

05.01.06.03.03 • Work and activities to be carried out

## Final attainment level and test criteria for VCA

- 05.01.06.03.04 • Hazardous jobs and management measures for the task and workplace
- 05.01.06.03.05 • Required medical suitability
- 05.01.06.03.06 • Risks present (hazardous substances, machines, situations, processes)
- 05.01.06.03.07 • Which personal protective equipment will be used to control these risks
- 05.01.06.03.08 • Who will provide the personal protective equipment (employment agency or user enterprise)
- 05.01.06.03.09 • Who will provide the instructions for use for the personal protective equipment (employment agency or user enterprise)
- 05.01.06.03.10 • Professional training/level of education
- 05.01.06.03.11 • Experience
- 05.01.06.03.12 • Linguistic competence
- 05.01.06.03.13 • The possession of a valid certificate/credentials/diploma Basic Safety VCA (Basisveiligheid VCA), unless it is stated in the application and substantiated by the user enterprise why Basic Safety VCA is not obligatory
- 05.01.06.03.14 • Requirements for Hazardous jobs
- 05.01.06.03.15 • Other relevant training courses

### 05.01.06.04 Ff

The candidate can specify the points of focus that are important during selection

- 05.01.06.04.01 • The selection procedure for temporary worker(s) who satisfy the requirements specified in the application
- 05.01.06.04.02 • Any deviation from or exception to the requirements specified in the application will be presented to the user enterprise before definitive selection takes place
- 05.01.06.04.03 • Additional preventive measures or agreements are recorded on the selection or application document(s)
- 05.01.06.04.04 • The user enterprise must approve the selection that deviates from the requirements. If there is a deviation between the application and the selection, a memorandum will drawn up by the employment agency (date, name, job)

### 05.01.06.05 Bb

The candidate can describe what the temporary worker must know about the specific Health and Safety risks and the Health, Safety and Environmental Quality rules and regulations at the location where he will be employed

- 05.01.06.05.01 • The assignment for temporary work, the risks and management measures of the job in which the candidate will be placed
- 05.01.06.05.02 • Sector-specific Health and Safety rules and regulations
- 05.01.06.05.03 • The personal protective equipment stipulated at the user enterprise and instruction on how to use it properly
- 05.01.06.05.04 • Medical examination, if necessary
- 05.01.06.05.05 • Reporting procedure for accidents involving absence from work/unavailability for work

### 05.01.06.06 Bb

The candidate can describe what must be done in relation to verifying the agreements made with the user enterprise

- 05.01.06.06.01 • Reception at the company; meeting the supervisor
- 05.01.06.06.02 • Person to whom the worker must report for instructions about the workplace

## Final attainment level and test criteria for VCA

and task

05.01.06.06.03 • Provision and use of personal protective equipment

05.01.06.06.04 • The task to be carried out by the temporary worker; the work location and the conditions

05.01.06.06.05 • Competence and medical suitability for carrying out hazardous jobs

### 05.01.06.07 Bb

The candidate can describe the aspects that must be focused upon when evaluating the temporary work with the user enterprise

05.01.06.07.01 • Professional competence; theoretical knowledge; self-sufficiency; safe execution of tasks

05.01.06.07.02 • Motivation; attitude; communication; understanding instructions (language knowledge)

05.01.06.07.03 • Compliance with Health, Safety and Environmental Quality rules and regulations; complying with work permits; keeping to agreements

05.01.06.07.04 • Proper use of tools; looking after tools; cleaning up

05.01.06.07.05 • Correct use of personal protective equipment; care of personal protective equipment

05.01.06.07.06 • Asking questions if something is unclear; reporting deviations; reporting unsafe situations

05.01.06.07.07 • Communication and contact with the employment agency

### 05.01.06.08 Bb

The candidate can describe the aspects that must be focused upon when evaluating the temporary work with the temporary worker

05.01.06.08.01 • Introduction and instructions on rules and regulations (Health, Safety and Environmental Quality)

05.01.06.08.02 • Issuing personal protective equipment and work clothing

05.01.06.08.03 • Communication with contact person and/or direct supervisor

05.01.06.08.04 • Work situation and working conditions with regard to health and safety

05.01.06.08.05 • Facilities such as changing room, canteen, sanitary amenities

05.01.06.08.06 • Focus on and supervision of safe working conditions

05.01.06.08.07 • Involvement in Health, Safety and Environmental Quality instruction sessions / meetings (toolbox meetings; instruction when starting work)

### 05.01.06.09 Bb

The candidate can describe what must be done in the case of accidents involving absence from work/unavailability for work

05.01.06.09.01 • Procedure for reporting and registration

05.01.06.09.02 • Communication of the procedure to temporary workers

05.01.06.09.03 • Correct and full completion of accident form

05.01.06.09.04 • Registration of all accidents

05.01.06.09.05 • Annually following up accident statistics (IF)

### 05.01.06.10 Ff

The candidate can describe what must be discussed with the user enterprise regarding medical examination

05.01.06.10.01 • For which jobs or specific work locations at hiring companies is a medical

## Final attainment level and test criteria for VCA

examination is required

05.01.06.10.02 • Medical examination by authorised persons or certified medical services for company medical care

05.01.06.10.03 • Providing information to temporary workers about required medical suitability and medical examinations and re-examinations to be conducted

05.01.06.10.04 • Verifying and keeping up-to-date the medical suitability of temporary workers for the work they are actually doing

05.01.06.10.05 • Check out which medical examinations the hiring company will have performed itself and (if necessary) extend cooperation

05.01.06.10.06 • Awareness that the medical examination must not be used inappropriately to select the healthiest candidate

### 05.01.06.11 BE / Ff

The candidate knows which aspects must be discussed with the hiring company in relation to the medical examination

05.01.06.11.01 • Check out and track medical suitability of temporary agency workers for the position they are actually performing

05.01.06.11.02 • The hiring company indicates on the job description whether a prior health examination is required

05.01.06.11.03 • The health examination is carried out by the hiring company's internal or external medical service or by the medical service affiliated with the temporary employment agency

05.01.06.11.04 • The result of the health examination is delivered to the temporary agency worker and after that to the hiring company

### 05.01.06.12 Bb

The candidate can describe the conditions in which it is allowed to deviate from the tasks originally agreed for the temporary agency worker

05.01.06.12.01 • Information in advance to the temporary employment agency and the temporary agency worker

05.01.06.12.02 • Description of specific additional preventive measures

05.01.06.12.03 • Agreements about who informs and instructs the temporary agency worker and who issues protection equipment

## 05.02 Tasks, rights and duties of those in operational leading roles

### 05.02.01 VOL VCA / VIL VCU

The candidate can name the HSE tasks of those in operational leading roles

#### 05.02.01.01 Ff

The candidate can name the HSE tasks of operational supervisors

05.02.01.01.01 • To formulate proposals and advice to the employer

05.02.01.01.02 • To investigate accidents and incidents and to propose measures

05.02.01.01.03 • To check working equipment and personal protection equipment

05.02.01.01.04 • To obtain advice from prevention services

05.02.01.01.05 • To verify whether employees have the required skills and information

05.02.01.01.06 • To monitor compliance with instructions

05.02.01.01.07 • To ensure that the employees understand the information and actually use it

05.02.01.01.08 • To organise the introduction of the starting employee and to assign an

## Final attainment level and test criteria for VCA

experienced employee to supervise him

05.02.01.01.09 • To cooperate in risk management (RIE and JHA)

05.02.01.01.10 • To execute safety inspections

05.02.01.01.11 • To organise HSE meetings (toolbox meetings)

### 05.02.02 VOL VCA / VIL VCU

The candidate can describe the obligations regarding information and training

#### 05.02.02.01 Ff

The candidate can state when an employee must follow training and receive instructions

05.02.02.01.01 • Prior to commencing the activities (during recruitment, including temporary employees)

05.02.02.01.02 • When being transferred or when changing job/ function

05.02.02.01.03 • When a new piece of equipment is introduced or equipment is changed

05.02.02.01.04 • When implementing new working procedures, new technology

#### 05.02.02.02 Ff

The candidate can state the characteristics of good information and training

05.02.02.02.01 • Tailored to the nature, capacity and experience of the employee

05.02.02.02.02 • Tailored to the specific activities

05.02.02.02.03 • Understandable

05.02.02.02.04 • Practical, not only in writing

#### 05.02.02.03 Ff

The candidate can state the obligatory content of information and training

05.02.02.03.01 • Health, safety and welfare in general

05.02.02.03.02 • Hazards at the workplace

05.02.02.03.03 • Measures taken

05.02.02.03.04 • Regulations and rules drawn up by the employer

#### 05.02.02.04 Bb

(expired April 2011)

#### 05.02.02.05 Bb

The candidate can describe ways in which supervisors can improve the motivation of employees

05.02.02.05.01 • Try to obtain as much insight as possible into the personality and the capabilities of your employees

05.02.02.05.02 • Do not assign jobs to employees that require him/her working above or below his/her capabilities

05.02.02.05.03 • Take into account the opinions, proposals, wishes and advice of your employees

05.02.02.05.04 • Tell the employees what you think about them, including their performance in the area of health, safety and the environment

05.02.02.05.05 • Evaluate your employees as objectively as possible

05.02.02.05.06 • Ensure that when corrective action is taken, the self esteem of the employee as a professional or as a human being is not affected

05.02.02.05.07 • Ensure that there is a healthy amount of self criticism

## Final attainment level and test criteria for VCA

05.02.02.05.08 • Try to listen attentively to what someone else has to say to you

05.02.02.05.09 • Tell the employees not only how to do something but also why

05.02.02.05.10 • Give a good example

### 05.03 Workplace inspections

#### 05.03.01 VOL VCA

The candidate can describe points to consider when carrying out workplace inspections and safety behaviour observation rounds

##### 05.03.01.01 Ff

The candidate can describe how to perform workplace inspections and observation rounds

05.03.01.01.01 • Plan sufficient time for an inspection (approximately 30 minutes)

05.03.01.01.02 • Make clear what the intention is

05.03.01.01.03 • Observe one person at a time, never an entire group simultaneously

05.03.01.01.04 • It is a regular and not an occasional task of the supervisor (every supervisor at least once a month)

05.03.01.01.05 • Inspections should preferably be done with two, at the maximum, three people

05.03.01.01.06 • Do not disrupt the activities, do not get in the way of the employees

05.03.01.01.07 • Observe the activities and note in particular the HSE aspects

05.03.01.01.08 • Check whether the procedures and regulations are followed

05.03.01.01.09 • Your presence generates a response, if this has an adverse effect, you must discuss it at a later date with the person involved

05.03.01.01.10 • In situations where your presence changes the approach to work, address this

05.03.01.01.11 • Make notes

05.03.01.01.12 • Do not just watch, but also listen, interview, give advice and make agreements

05.03.01.01.13 • Inform the person involved of the positive and negative safety aspects of the findings

05.03.01.01.14 • Correct in such a way that it is positive for the motivation of the employee's

05.03.01.01.15 • Pay attention to incidents that have taken place

05.03.01.01.16 • Communicate in a way that does not harm the employee's self esteem

##### 05.03.01.02 Ff

The candidate can name subjects that the workplace inspection and the observation round can focus on

05.03.01.02.01 • Collective protection equipment

05.03.01.02.02 • Personal protection equipment

05.03.01.02.03 • Positioning (location) of employees with respect to each other

05.03.01.02.04 • Actions of employees

05.03.01.02.05 • Equipment: machines, tools and devices

05.03.01.02.06 • Order and tidiness

05.03.01.02.07 • Use of procedures

##### 05.03.01.03 Bb

The candidate can describe the elements that must appear in a workplace inspection and observation round report

05.03.01.03.01 • The findings

05.03.01.03.02 • Is safe working and behaviour possible/ difficult/ impossible



## Final attainment level and test criteria for VCA

05.03.01.03.03 • Were the observer and the person being observed in agreement concerning safe working and behaviour

05.03.01.03.04 • What actions are taken

05.03.01.03.05 • Which people/ departments are responsible for this action

05.03.01.03.06 • Which people/ departments are responsible for following up this action

### 05.03.02 VOL VCA / VIL VCU

The candidate can state advantages of work place inspections

#### 05.03.02.01 Ff

The candidate can state benefits of work place inspections and observation rounds

05.03.02.01.01 • Increase safety awareness

05.03.02.01.02 • Provide good insight into the safety situation at the workplace

### 05.04 HSE meeting (toolbox meeting)

#### 05.04.01 VOL VCA / VIL VCU

The candidate can name characteristics of the work meeting

#### 05.04.01.01 Ff

The candidate can state characteristics of the work meeting

05.04.01.01.01 • Takes place regularly

05.04.01.01.02 • Takes place in a structured way (agenda, minutes)

05.04.01.01.03 • Runs interactively top down and bottom up

#### 05.04.02 Basis / VOL VCA / VIL VCU

The candidate can describe the meeting within the context of H&S legislation and the VCA

#### 05.04.02.01 Ff

The candidate can name the two types of meeting

05.04.02.01.01 • Meeting between the employer and the employee representation

05.04.02.01.02 • Work meeting with the employees in an HSE meeting (toolbox meeting)

#### 05.04.02.02 Ff

The candidate can state who participates in the discussions between the employer and the employee representation

05.04.02.02.01 • Employer (chairperson)

05.04.02.02.02 • Employers (representation)

05.04.02.02.03 • Employees (representation)

05.04.02.02.04 • Experts (e.g. prevention consultant)

#### 05.04.02.03 Bb

(expired April 2011)

#### 05.04.03 VOL VCA

The candidate can describe the points to consider in and the content of an HSE meeting (toolbox meeting)

#### 05.04.03.01 Bb

The candidate can describe the points to pay attention to for the agreed actions in the HSE meeting (toolbox meeting)

05.04.03.01.01 • Make clear agreements and record them in writing in the minutes of the meeting

05.04.03.01.02 • Assess whether the message(s) has (have) been understood

## Final attainment level and test criteria for VCA

### 05.04.03.02 Ff

The candidate can name subjects for an HSE meeting (toolbox meeting)

05.04.03.02.01 • Use of personal protection equipment

05.04.03.02.02 • Order, tidiness

05.04.03.02.03 • Working methods

05.04.03.02.04 • (Emergency) procedures

05.04.03.02.05 • Incidents, accidents

05.04.03.02.06 • Workplace inspections

### 05.04.04 VIL VCU

The candidate can state characteristics of the work meeting

#### 05.04.04.01 Bb

The candidate can indicate what is important in the meeting with respect to health and safety within the temporary employment agency

05.04.04.01.01 • Involvement of the management and the supervisors

### 05.04.05 VIL VCU

The candidate can explain the involvement of the temporary agency worker in the HSE meetings (toolbox meetings)

#### 05.04.05.01 Ff

The candidate can explain the involvement of the temporary agency worker in the HSE meetings (toolbox meetings)

05.04.05.01.01 • The intermediary informs the temporary agency worker about the existence and purpose of the HSE meetings (toolbox meetings)

05.04.05.01.02 • The temporary worker must take part in the Health, Safety and Environmental Quality meetings (toolbox meetings) that are organised at the user enterprise

### 05.04.06 VOL VCA

The candidate can describe the requirements and the working method when organising and holding an HSE meeting (toolbox meeting)

#### 05.04.06.01 Ff

The candidate can state the people who participate in the HSE meeting (toolbox meeting)

05.04.06.01.01 • Management of the department/service

05.04.06.01.02 • Operational employees

#### 05.04.06.02 Bb

The candidate can describe the concept of an HSE meeting (toolbox meeting)

05.04.06.02.01 • Short meeting in an informal atmosphere

05.04.06.02.02 • Concerning health, safety and the environment

05.04.06.02.03 • With interactive participation of all people present

#### 05.04.06.03 Bb

The candidate can describe the purpose of an HSE meeting (toolbox meeting)

05.04.06.03.01 • To inform and motivate employees to prevent unsafe actions/ unsafe behaviour

## 05.05 Certification, safety passport and training for high-risk tasks

### 05.05.01 VOL VCA / VIL VCU

The candidate can describe the objective, application and meaning of VCA

## Final attainment level and test criteria for VCA

### certification

#### 05.05.01.01 Bb

The candidate can describe the meaning of the abbreviation VCA

- 05.05.01.01.01 • VCA stands for VGM Checklist Aannemers
- 05.05.01.01.02 • VGM means health, safety and the environment (HSE)
- 05.05.01.01.03 • Checklist: questionnaire in the form of an analysis and screening system
- 05.05.01.01.04 • Contractors: companies that carry out work for and on the premises of others (customers)

#### 05.05.01.02 Bb

The candidate can describe the purpose of VCA certification

- 05.05.01.02.01 • To control the activities on the work floor with respect to HSE
- 05.05.01.02.02 • Objective: prevention of incidents (HSE)

#### 05.05.01.03 Ff

The candidate can state the group of companies for which VCA certification is intended

- 05.05.01.03.01 • Companies that allow their employees to perform high-risk activities or activities in high-risk surroundings, such as factories, installations and building sites

#### 05.05.01.04 Bb

The candidate can describe the meaning of the VCA certificate

- 05.05.01.04.01 • Certificate to demonstrate that a company, in accordance with the VCA rules, works to control HSE

#### 05.05.01.05 Ff

The candidate can state the various levels of VCA certification

- 05.05.01.05.01 • VCA\* (one star). This certification level focuses on the direct HSE care for the activities on the work floor
- 05.05.01.05.02 • VCA \*\* (two stars). In addition to the elements from VCA\*, here the safety structures and systems in the contractor's company are also assessed
- 05.05.01.05.03 • Petrochemistry: companies that carry out high-risk activities in the petrochemistry/ petrochemical industry are subject to additional requirements, supplementary to VCA\*\*

#### 05.05.02 VOL VCA / VIL VCU

The candidate can describe the objectives of VCU certification (for agencies)

##### 05.05.02.01 Ff

The candidate can name the meaning of the abbreviation of VCU

- 05.05.02.01.01 • VCU stands for "Veiligheid en gezondheid Checklist Uitzendorganisaties" (health and safety checklist for temporary employment agencies)

##### 05.05.02.02 Bb

The candidate can describe the objectives of VCU certification

- 05.05.02.02.01 • To allow temporary employment agencies to control the process of making temporary agency workers available with respect to health and safety at the workplace

#### 05.05.03 VOL VCA / VIL VCU

The candidate can describe the objectives of VCO certification (for customers)

## Final attainment level and test criteria for VCA

### 05.05.03.01 Ff

The candidate can state the meaning of the abbreviation of VCO

- 05.05.03.01.01 • VCO stands for Veiligheid, gezondheid en milieu Checklist Opdrachtgevers (health, safety and environment checklist for customers)

### 05.05.03.02 Bb

The candidate can describe the objectives of VCO certification (for customers)

- 05.05.03.02.01 • The customer ensures that the conditions and circumstances are such that they allow VCA certified contractors and temporary agency workers, hired out via VCU certified agencies, and who come to carry out high-risk work on their premises, to work in a safe way

### 05.05.04 VOL VCA / VIL VCU

The candidate can state the significance and the advantages of correct use of the safety passport

#### 05.05.04.01 Bb

The candidate can describe the safety passport concept

- 05.05.04.01.01 • A personal document (book) stating important details regarding education, training courses, medical details and vaccinations

#### 05.05.04.02 Bb

The candidate can describe the conditions for correctly filling in the safety passport

- 05.05.04.02.01 • The employer has drawn up a procedure to ensure that the safety passport is filled in correctly and in time

### 05.05.05 VOL VCA / VIL VCU

The candidate can state the significance of the mandatory training courses and examinations

#### 05.05.05.01 NL / Bb

The candidate can describe the significance of the "SSVV Opleidingen Gids"

- 05.05.05.01.01 • In the petrochemical industry, it is mandatory that for a number of activities/functions the operational employees have passed an exam at a recognised centre

#### 05.05.05.02 NL / Ff

The candidate can give a number of examples of activities in the petrochemical industry that require a mandatory exam being taken at a recognised SSVV Opleidingen Gids-exam centre

- 05.05.05.02.01 • Working with a fork-lift truck
- 05.05.05.02.02 • Working with a reach truck
- 05.05.05.02.03 • Working with a hydraulic platform
- 05.05.05.02.04 • Working on low-pressure flanges
- 05.05.05.02.05 • Working as an authorised attendant (confined space)
- 05.05.05.02.06 • Moving loads
- 05.05.05.02.07 • Working with self-contained breathing protection
- 05.05.05.02.08 • Measuring gas: explosion hazardous and toxic substances and oxygen

#### 05.05.05.03 BE / Bb

The candidate can describe the significance of the Register of High-Risk Tasks (RRT)

- 05.05.05.03.01 • The RIE shows the tasks for which a training course with a concluding test is required, here use can be made of the Register of High-Risk Tasks (RRT)

## Final attainment level and test criteria for VCA

- 05.05.05.03.02 • In the petrochemical industry, it is mandatory that for a number of activities/functions the operational employees have passed an exam at a recognised centre

### 05.05.05.04 BE / Ff

The candidate can give a number of examples of activities in the petrochemical industry that require a mandatory exam being taken at a recognised RRT exam centre

- 05.05.05.04.01 • Working with a fork-lift truck
- 05.05.05.04.02 • Working with a reach truck
- 05.05.05.04.03 • Working with a hydraulic platform on a truck
- 05.05.05.04.04 • Working with a self-propelled hydraulic platform (articulated arm/ telescopic arm/ scissor lift)
- 05.05.05.04.05 • Working as an authorised attendant outside a confined space
- 05.05.05.04.06 • Working with self-contained breathing protection
- 05.05.05.04.07 • Attaching critical loads and communicating with the hoist operator (rigger)
- 05.05.05.04.08 • Working with flanges - flange mechanic (high and low-pressure flanges)
- 05.05.05.04.09 • Measuring and detecting hazardous substances: explosion hazardous substances, oxygen and toxic substances (EX - OX- TOX)

### 05.05.05.05 Ff

The candidate can state the training requirements for employees within the framework of VCA

- 05.05.05.05.01 • For operational employees: certificate, attest, diploma Basic safety VCA (B-VCA)
- 05.05.05.05.02 • For operational supervisors of operational employees: certificate "Veiligheid Operationeel Leidinggevenden VCA" (VOL-VCA - Safety for Operational Supervisors VCA)
- 05.05.05.05.03 • For high-risk tasks: certificate of the associated test

### 05.05.06 VIL VCU

The candidate can state the training requirements that are imposed on the temporary agency workers and on the employees of the temporary employment agency

#### 05.05.06.01 Ff

The candidate can state the training requirements that are imposed on the temporary agency workers and on the employees of the temporary employment agency

- 05.05.06.01.01 • The temporary agency workers who are posted to hiring companies that have a VCA certificate: certificate, attest or "Basic safety VCA" diploma
- 05.05.06.01.02 • The temporary agency worker, who is posted as an operational supervisor to a hiring company: certificate, attest or "Veiligheid voor Operationeel Leidinggevende VCA" or VOL-VCA (safety for operational supervisor VCA) diploma
- 05.05.06.01.03 • The intermediary and supervisors in the temporary employment agency with an VCU certificate: certificate, attest or "Veiligheid voor Intercedenten en Leidinggevenden VCU" or VIL-VCU (safety for intermediaries and supervisors VCU) diploma

## 06. Procedures and instructions, signs

### 06.01 Safety procedures and instructions

#### 06.01.01 VOL VCA / VIL VCU

The candidate can describe the objective and use of general safety rules

##### 06.01.01.01 Bb

The candidate can describe for whom the general safety rules are intended

- 06.01.01.01.01 • For the entire organisation
- 06.01.01.01.02 • Company personnel
- 06.01.01.01.03 • Temporary agency workers
- 06.01.01.01.04 • Other people at the location
- 06.01.01.01.05 • Personnel of contractors and subcontractors

##### 06.01.01.02 Bb

The candidate can describe the guidelines for the use of general safety rules

- 06.01.01.02.01 • Must be recorded in writing
- 06.01.01.02.02 • Must be notified to every person who enters the location for the first time
- 06.01.01.02.03 • Must be sufficiently clear and unambiguous
- 06.01.01.02.04 • Must also be able to be understood by people who only speak other languages

##### 06.01.01.03 Bb

The candidate can describe what the general safety rules can relate to

- 06.01.01.03.01 • Notifying presence and absence
- 06.01.01.03.02 • Traffic rules on the site
- 06.01.01.03.03 • How to act in the event of incidents.
- 06.01.01.03.04 • The sorting of waste
- 06.01.01.03.05 • The reporting of accidents, fire and incidents

#### 06.01.02 VOL VCA / VIL VCU

The candidate can describe the objective and usage of specific safety rules

##### 06.01.02.01 Bb

The candidate can describe for which situations specific safety rules are intended

- 06.01.02.01.01 • For tasks, functions and activities that pose a higher risk

##### 06.01.02.02 Bb

The candidate can describe what the specific safety rules relate to

- 06.01.02.02.01 • Entering confined spaces
- 06.01.02.02.02 • Working at height
- 06.01.02.02.03 • Warm/ hot work
- 06.01.02.02.04 • Working in explosion hazardous surroundings
- 06.01.02.02.05 • Use of the required personal protection equipment
- 06.01.02.02.06 • Excavation activities
- 06.01.02.02.07 • Use of specific tools, devices and equipment
- 06.01.02.02.08 • Screening
- 06.01.02.02.09 • Ventilation
- 06.01.02.02.10 • Signaling
- 06.01.02.02.11 • Marking

##### 06.01.02.03 Bb

The candidate can describe guidelines concerning the use of specific safety rules

## Final attainment level and test criteria for VCA

- 06.01.02.03.01 • Must be recorded in writing
- 06.01.02.03.02 • Must be sufficiently clear and unambiguous
- 06.01.02.03.03 • Must be available to the employee concerned/ involved
- 06.01.02.03.04 • Must be explained to the employees involved
- 06.01.02.03.05 • A check must establish whether the employees involved have understood the rules
- 06.01.02.03.06 • Should also be understood by native speakers

### 06.01.02.04 Bb

(expired April 2011)

### 06.01.03 VOL VCA / VIL VCU

The candidate can give an indication of what the content of the general and specific information for new staff involves

#### 06.01.03.01 Ff

The candidate can indicate what general information is given to new employees

- 06.01.03.01.01 • General health and safety rules
- 06.01.03.01.02 • General instructions for use in the event of fire and alarm
- 06.01.03.01.03 • Reporting procedure for (near) accidents and unsafe situations
- 06.01.03.01.04 • The guidelines to adhere to in the event of an accident during or on the way to or from the workplace
- 06.01.03.01.05 • Necessity and use of personal protection equipment

#### 06.01.03.02 Ff

The candidate can indicate what specific information the supervisor gives to new employees

- 06.01.03.02.01 • Hazards at the workplace
- 06.01.03.02.02 • Measures taken
- 06.01.03.02.03 • Specific workplace-bound health and safety rules
- 06.01.03.02.04 • Specific health and safety rules related to the installations, machines, equipment
- 06.01.03.02.05 • Specific company-related details regarding danger zones, evacuation routes, canteen, sanitary facilities, etc.
- 06.01.03.02.06 • Information regarding the conditions of the workplace (function requirements, hazards, control measures) based on the information from the customer

### 06.01.04 VIL VCU

The candidate can describe the duty to pass on information

#### 06.01.04.01 NL / Bb

The candidate can describe what the duty to pass on information entails

- 06.01.04.01.01 • The hiring company and the temporary employment agency have a shared duty with respect to providing the temporary agency worker with information
- 06.01.04.01.02 • The temporary employment agency must pass on information to the temporary agency worker regarding the workplace and the requirements placed on the job and the activities
- 06.01.04.01.03 • This information is provided by the hiring company

### 06.01.05 VOL VCA / VIL VCU

The candidate can indicate what the instructions provided by the temporary employment agency must contain

## Final attainment level and test criteria for VCA

### 06.01.05.01 Ff

The candidate can indicate what the instructions that the temporary employment agency must provide to the temporary agency worker within the framework of VCU must address

- 06.01.05.01.01 • General health and safety rules
- 06.01.05.01.02 • General instructions for use in the event of fire and alarm
- 06.01.05.01.03 • Reporting of unsafe actions and situations
- 06.01.05.01.04 • What to do in the event of accidents during the work and in the event of accidents on the way to and from work
- 06.01.05.01.05 • Details concerning the temporary employment agency (office) and of the contact person
- 06.01.05.01.06 • Policy declaration of the temporary employment agency
- 06.01.05.01.07 • Necessity and rules governing the use of personal protection equipment
- 06.01.05.01.08 • Sector specific information (e.g. pictograms)
- 06.01.05.01.09 • Information regarding the workplace: job requirements, hazards and control measures
- 06.01.05.01.10 • Specific information supplied by the hiring company
- 06.01.05.01.11 • Specific rules and regulations of the hiring company
- 06.01.05.01.12 • Explanation of the permit system of the hiring company
- 06.01.05.01.13 • Handing over documentation

## 06.02 Making the workplace and installation safe

### 06.02.01 Basis / VOL VCA / VIL VCU

The candidate can state the function of connecting flanges and situations in which a connecting flange is used

#### 06.02.01.01 Ff

The candidate can state the function of a connecting flange

- 06.02.01.01.01 • To separate sections of pipe
- 06.02.01.01.02 • To shut off supply lines to vessels, tanks or installations

#### 06.02.01.02 Ff

The candidate can state situations in which a connecting flange is used

- 06.02.01.02.01 • When cleaning, repairing, inspecting, flushing, degassing or steaming out pipelines, vessels/ tanks and/or installations
- 06.02.01.02.02 • When replacing shut-off valves and devices on pipes that transport products
- 06.02.01.02.03 • When working in a confined space (supply pipes must be shut off)

### 06.02.02 Basis / VOL VCA / VIL VCU

The candidate can state the function of securing installations and equipment and give examples

#### 06.02.02.01 Ff

The candidate can state the function of making installations and equipment safe

- 06.02.02.01.01 • To prevent equipment and system components starting to move unintentionally
- 06.02.02.01.02 • To prevent equipment, machines and system components becoming live unintentionally
- 06.02.02.01.03 • Check that the installations and/or equipment are not pressurised

#### 06.02.02.02 Ff



## Final attainment level and test criteria for VCA

The candidate can state the conditions and the priority of actions for making installations and equipment safe

- 06.02.02.02.01 • Only to be secured by authorised persons
- 06.02.02.02.02 • Decommission
- 06.02.02.02.03 • Secure against accidentally switching on again and mark
- 06.02.02.02.04 • Check whether installation or equipment has been secured

### 06.03 Safe working permits (work permit)

#### 06.03.01 Basis / VOL VCA / VIL VCU

The candidate can make a distinction between the general work permit and the supplementary work permit.

##### 06.03.01.01 Bb

The candidate can describe the objective of the general work permit

- 06.03.01.01.01 • To ensure that consultations take place and that formal approval is given for the activities on the site and on the installations

##### 06.03.01.02 Bb

The candidate can describe the purpose of supplementary work permits

- 06.03.01.02.01 • The work is associated with specific risks
- 06.03.01.02.02 • The work requires specific training or explanation
- 06.03.01.02.03 • A condition for carrying out the work: it is written down
- 06.03.01.02.04 • A condition for carrying out the work: it has been explained in detail
- 06.03.01.02.05 • A condition for carrying out the work: it has been signed

##### 06.03.01.03 Bb

The candidate can specify activities for which a supplementary work permit may be necessary

- 06.03.01.03.01 • Entering a confined space
- 06.03.01.03.02 • Work that poses the risk of fire, also called a fire permit or hotwork permit, e.g.: welding, grinding
- 06.03.01.03.03 • Digging in contaminated soil (soil that contains pipes, opening up floors, streets)
- 06.03.01.03.04 • Working on or near hazardous radiation sources
- 06.03.01.03.05 • Lifting activities above or in the vicinity of important installations
- 06.03.01.03.06 • Working with or demolishing materials containing asbestos
- 06.03.01.03.07 • Working with hazardous substances
- 06.03.01.03.08 • Working at height

#### 06.03.02 Basis / VOL VCA / VIL VCU

The candidate can describe the functions of a work permit and state the contents of a work permit

##### 06.03.02.01 Bb

The candidate can describe the functions of a work permit

- 06.03.02.01.01 • To consult with everyone involved in the work
- 06.03.02.01.02 • To make binding agreements with everyone involved in the work
- 06.03.02.01.03 • To record the conditions in which work must be done
- 06.03.02.01.04 • To grant permission for starting the activities

##### 06.03.02.02 Ff

## Final attainment level and test criteria for VCA

The candidate can state the contents of a work permit

- 06.03.02.02.01 • Time of validity (usually 1 day)
- 06.03.02.02.02 • The activities that are being requested
- 06.03.02.02.03 • Who will do which job
- 06.03.02.02.04 • Measures to take/that have been taken by the issuer of the work permit
- 06.03.02.02.05 • Measures to be taken by the operational employees, those who carry out the work
- 06.03.02.02.06 • Measures to ensure that the work area is left in a safe condition after the work has been done
- 06.03.02.02.07 • Approval/ signature
- 06.03.02.02.08 • Conditions for extending the work permit

### 06.03.03 VOL VCA / VIL VCU

The candidate can describe the sections of the work permit

#### 06.03.03.01 Bb

The candidate can describe the section of the work permit concerning the requested activities

- 06.03.03.01.01 • This states what the activities entail
- 06.03.03.01.02 • How the activities will take place
- 06.03.03.01.03 • Where the activities will take place

#### 06.03.03.02 Bb

The candidate can describe the section of the work permit concerning the measures prescribed by the issuer of the work permit

- 06.03.03.02.01 • The measures to be able to work safely
- 06.03.03.02.02 • Making safe: connecting flanges, electrical and/or mechanical locking
- 06.03.03.02.03 • Measuring and detecting

#### 06.03.03.03 Bb

The candidate can describe the section in the work permit concerning the measures to be taken by the operational employee

- 06.03.03.03.01 • The measures that the operational employees must take to work safely
- 06.03.03.03.02 • All items of personal protection equipment must be stated here

#### 06.03.03.04 Bb

The candidate can describe what is meant by a signature on the work permit

- 06.03.03.04.01 • Those who sign the work permit agree with its contents
- 06.03.03.04.02 • The work permit is signed by the issuer, the holder and the supervisor(s) of the person(s) doing the work or by the person(s) doing the work if so authorised

### 06.03.04 Basis / VOL VCA / VIL VCU

The candidate can describe the obligations of the persons involved with the work permit

#### 06.03.04.01 Ff

The candidate can state the obligations of the permit issuer

- 06.03.04.01.01 • To check that the installation has been released for the work to be performed before signing the work permit
- 06.03.04.01.02 • To discuss with the permit holder the nature of the activities, the conditions and the measures that must be taken before signing the work permit

## Final attainment level and test criteria for VCA

06.03.04.01.03 • To sign the work permit

06.03.04.01.04 • If necessary, the issuer ensures that the necessary measurements have been taken

06.03.04.01.05 • If various activities are carried out concurrently, the issuer arranges the necessary coordination and agreements between the parties involved

### 06.03.04.02 Ff

The candidate can state the obligations of the permit holder

06.03.04.02.01 • The holder is usually the supervisor of the operational employees

06.03.04.02.02 • The holder provides an explanation to the operational employees

06.03.04.02.03 • The holder signs the permit

06.03.04.02.04 • The holder monitors that the activities proceed in accordance with the conditions on the work permit

06.03.04.02.05 • The holder ensures that the work permit is on site

### 06.03.04.03 Ff

The candidate can state the obligations of the operational employees

06.03.04.03.01 • To become acquainted with the content of the work permit

06.03.04.03.02 • To comply with the conditions for the activities as described in the work permit

06.03.04.03.03 • To comply with the measures as stated in the work permit

06.03.04.03.04 • To only work with a valid work permit and to take into account the duration of validity

### 06.03.05 VOL VCA / VIL VCU

The candidate can state the obligations imposed by the work permit on the operational staff's supervisor

#### 06.03.05.01 Ff

The candidate can state the obligations of the supervisor of the operational staff

06.03.05.01.01 • The supervisor must discuss all measures thoroughly in advance with the operational employees

06.03.05.01.02 • The supervisor must ensure that the work permit is present at the workplace

06.03.05.01.03 • The supervisor must check the measures to be taken by the issuer and the holder

## 06.04 Signs and marking

### 06.04.01 Basis / VOL VCA / VIL VCU

The candidate can describe the principles of health and safety signs

#### 06.04.01.01 Ff

The candidate can state the principles of the legislation related to providing information through the use of signs

06.04.01.01.01 • Possible hazards

06.04.01.01.02 • Imposed measures

06.04.01.01.03 • Mandatory use of personal protection equipment

06.04.01.01.04 • First Aid and fire-fighting equipment

06.04.01.01.05 • Evacuation routes

06.04.01.01.06 • Signs are a part of the prevention approach

#### 06.04.01.02 Ff

The candidate can state groups of signs

## Final attainment level and test criteria for VCA

06.04.01.02.01 • Signs that prohibit something

06.04.01.02.02 • Mandatory signs

06.04.01.02.03 • Warning signs

06.04.01.02.04 • Safety provisions

06.04.01.02.05 • Fire-fighting equipment

### 06.04.02 VOL VCA / VIL VCU

The candidate can state requirements for health and safety signs at the workplace

#### 06.04.02.01 Ff

The candidate can state requirements for health and safety signs at the workplace

06.04.02.01.01 • They must be displayed in such a way that they are noticed by the people for whom they are intended

06.04.02.01.02 • The design must be such that their meaning is clear to everyone involved

06.04.02.01.03 • They must be unambiguous

06.04.02.01.04 • Preferably pictograms with as little explanatory text as possible

06.04.02.01.05 • The size depends on the distance at which they must be seen

### 06.04.03 Basis / VOL VCA / VIL VCU

The candidate can state the format and the meaning of prohibitive signs

#### 06.04.03.01 Ff

The candidate can state the design of a sign that prohibits something

06.04.03.01.01 • Circular white sign with a red edge and a red diagonal.

06.04.03.01.02 • The white field contains a black symbol

#### 06.04.03.02 Ff

The candidate can state the meaning of the prohibitive signs: smoking prohibited; fire, open flame and smoking prohibited; pedestrians prohibited; putting out fire using water prohibited; not drinking water; entry to unauthorised persons prohibited; transport vehicles prohibited; do not touch

06.04.03.02.01 • No bulleted list

### 06.04.04 Basis / VOL VCA / VIL VCU

The candidate can state the format and the meaning of mandatory signs

#### 06.04.04.01 Ff

The candidate can describe the design of a mandatory sign

06.04.04.01.01 • Circular blue sign

06.04.04.01.02 • The blue field contains a white symbol

#### 06.04.04.02 Ff

The candidate is able to state the meaning of the mandatory signs: obligatory use of: eye protection, safety helmet, hearing protection, respiratory protection/breathing apparatus, safety shoes, safety gloves, body protection, face protection, individual safety harness

06.04.04.02.01 • No bulleted list

### 06.04.05 Basis / VOL VCA / VIL VCU

The candidate can state the format and the meaning of warning signs

#### 06.04.05.01 Ff

The candidate can state the design of a warning sign

## Final attainment level and test criteria for VCA

06.04.05.01.01 • Triangular yellow sign with a black edge

06.04.05.01.02 • The black symbol is displayed in the yellow field

### 06.04.05.02 Ff

The candidate can state the general meaning of the warning signs

06.04.05.02.01 • Danger

06.04.05.02.02 • Warning

06.04.05.02.03 • Caution

### 06.04.05.03 Ff

The candidate can state the meaning of these warning signs: general danger, high magnetic field, corrosive substances, biological hazard, explosive substances, danger of electrical voltage

06.04.05.03.01 • No bulleted list

### 06.04.05.04 Ff

The candidate can state the meaning of these warning signs: toxic substances, suspended loads, low temperatures, laser beam, non-ionising radiation

06.04.05.04.01 • No bulleted list

### 06.04.05.05 Ff

The candidate can state the meaning of these warning signs: flammable materials or high temperature, oxidising substances, radioactive substances, harmful or irritating substances, stumbling, transport vehicles, falling due to a difference in height

06.04.05.05.01 • No bulleted list

## 06.04.06 Basis / VOL VCA / VIL VCU

The candidate can state the format and the meaning of signs about safety facilities

### 06.04.06.01 Ff

The candidate can state the design of a sign for a safety provision (life saving or indication)

06.04.06.01.01 • Square or rectangular green sign

06.04.06.01.02 • Contains a white symbol

### 06.04.06.02 Ff

The candidate can state the general meaning of the signs for safety provisions (life saving or indication)

06.04.06.02.01 • Where are the (emergency) exits

06.04.06.02.02 • Where are the emergency equipment and evacuation routes

### 06.04.06.03 Ff

The candidate can state the meaning of the signs for safety provisions (life saving or indication) for exit; emergency exit, escape route; first aid; direction to follow; emergency shower; eye flush; telephone for life saving and first aid

06.04.06.03.01 • No bulleted list

## 06.04.07 Basis / VOL VCA / VIL VCU

The candidate can state the format and the meaning of signs about fire-fighting

### 06.04.07.01 Ff

The candidate can state the design of a sign for fire-fighting equipment

## Final attainment level and test criteria for VCA

06.04.07.01.01 • Square or rectangular red sign

06.04.07.01.02 • Contains a white symbol

### 06.04.07.02 Ff

The candidate can state the general meaning of the signs for fire-fighting equipment

06.04.07.02.01 • Indicates where the fire-fighting equipment can be found: the route to it

06.04.07.02.02 • Indicates where the fire-fighting equipment can be found: the place itself

### 06.04.07.03 Ff

The candidate can state the meaning of the signs for fire-fighting equipment: ladder, fire-extinguisher, fire hose, telephone for fire alarm, route to fire-fighting equipment

06.04.07.03.01 • No bulleted list

## 06.04.08 Basis / VOL VCA / VIL VCU

The candidate can state the meaning of markings

### 06.04.08.01 Ff

The candidate can state the various types of markings

06.04.08.01.01 • Tape

06.04.08.01.02 • Markings

### 06.04.08.02 Ff

The candidate can state the format and the application areas of tape

06.04.08.02.01 • They indicate danger/risk, tape is not a guard

06.04.08.02.02 • The tape is red/ white or yellow/ black

### 06.04.08.03 Ff

The candidate can state applications of yellow/ black marking

06.04.08.03.01 • To point out narrow/ low passages

06.04.08.03.02 • To point out objects that can cause an impact or to which the person can bump into, for instance a crane block

06.04.08.03.03 • Signs indicating areas containing hazardous substances

### 06.04.08.04 Ff

The candidate can state the use and format of marking on stairs

06.04.08.04.01 • Marking (stripe) of a different colour (usually yellow or white) to indicate the top step of the stairs

06.04.08.04.02 • Marking (stripe) of a different colour (usually yellow or white) to indicate the bottom step of the stairs

06.04.08.04.03 • Mark locations where there is a danger of tripping

06.04.08.04.04 • Indicate if there is little distinction between the floor and the steps

### 06.04.08.05 Ff

The candidate can state the use and the format of markings of passages and stacking areas

06.04.08.05.01 • White or yellow stripes

06.04.08.05.02 • Keep passages free; do not store or stack

06.04.08.05.03 • Store or stack within the marked area

## 07. Preparations for emergencies

### 07.01 Concepts

#### 07.01.01 Basis / VOL VCA / VIL VCU

The candidate can give a description of the concept of an emergency situation

##### 07.01.01.01 Bb

The candidate can describe the concept of an emergency situation

07.01.01.01.01 • Emergency situations that are caused by accidents, fire, explosion, uncontrolled escape of liquids, gas, biological agents or radioactive radiation

07.01.01.01.02 • Threat of an emergency situation due to excessively bad weather, natural disasters, social unrest, (threat of) terrorist attack, loss of infrastructure

### 07.02 Objectives and components of the (internal) company emergency plan

#### 07.02.01 VOL VCA / VIL VCU

The candidate can describe the notion of, the purpose of and the information in the (internal) company emergency plan

##### 07.02.01.01 Bb

The candidate can describe the concept of the (internal) company emergency plan

07.02.01.01.01 • A description of the measures and provisions that a company has prepared in case emergency situations arise

##### 07.02.01.02 Bb

The candidate can describe the purpose of an (internal) company emergency plan

07.02.01.02.01 • To limit the effects of possible emergency situations

##### 07.02.01.03 Ff

The candidate can state the information regarding the (internal) company emergency plan that (temporary employees and) operational employees must receive when entering the company premises

07.02.01.03.01 • Map of the company site (the evacuation plan)

07.02.01.03.02 • Warning signs (the evacuation plan)

07.02.01.03.03 • Alarm (the evacuation plan)

07.02.01.03.04 • Drills (the evacuation plan)

07.02.01.03.05 • Location of available aids (the intervention)

07.02.01.03.06 • First Aid (the intervention)

07.02.01.03.07 • Removing the cause (the intervention)

07.02.01.03.08 • Reporting accidents, emergency situations (the reporting)

07.02.01.03.09 • Warn the emergency services (the reporting)

### 07.04 Controlling and tackling emergency situations

#### 07.04.01 Basis / VOL VCA / VIL VCU

The candidate can describe how emergency situations are tackled

##### 07.04.01.01 Ff

The candidate can state the phases in controlling and tackling emergency situations

07.04.01.01.01 • First alarm

07.04.01.01.02 • Actions and measures

07.04.01.01.03 • Termination

## Final attainment level and test criteria for VCA

### 07.04.01.02 Bb

The candidate can explain the concept of the first alarm in emergency situations

- 07.04.01.02.01 • Description of the ways an emergency situation can be reported and what information must be communicated

### 07.04.01.03 Bb

The candidate can describe the concept of actions and measures dependent on the severity and scope of the emergency situation

- 07.04.01.03.01 • Evacuation
- 07.04.01.03.02 • Intervention: fire fighting, securing, clearing up
- 07.04.01.03.03 • Rescue operations
- 07.04.01.03.04 • Assistance

### 07.04.01.04 Ff

The candidate can describe the components of the termination of the emergency situation

- 07.04.01.04.01 • Who is/are authorised to declare the emergency situation terminated
- 07.04.01.04.02 • The way in which the termination is notified

### 07.04.01.05 Ff

The candidate can state the objectives of training and drills with respect to the (internal) company emergency plans

- 07.04.01.05.01 • To prepare the personnel for emergency situations
- 07.04.01.05.02 • To test the internal company emergency plan
- 07.04.01.05.03 • To test whether the personnel are sufficiently prepared for emergency situations

## 07.05 Company Health and Safety

### 07.05.01 VOL VCA / VIL VCU

The candidate can describe the Company H&S

#### 07.05.01.01 Ff

The candidate can state the obligations with respect to company emergency response

- 07.05.01.01.01 • Must be organised in every company/ every organisation
- 07.05.01.01.02 • Company emergency response must be guaranteed for the company concerned
- 07.05.01.01.03 • Certain training requirements must be met
- 07.05.01.01.04 • It concerns an established set of tasks

#### 07.05.01.02 Ff

The candidate can state the tasks established for company emergency response

- 07.05.01.02.01 • To provide first aid
- 07.05.01.02.02 • To fight a starting fire
- 07.05.01.02.03 • In emergency situations, to evacuate employees and other people present on the company premises

#### 07.05.01.03 Ff

The candidate can state the minimum requirements with respect to first aid

- 07.05.01.03.01 • First Aid equipment always available
- 07.05.01.03.02 • Trained emergency response team members



07.05.01.04 Ff

(expired April 2011)

## 07.06 Evacuation

07.06.01 Basis / VOL VCA / VIL VCU

The candidate can describe the instructions regarding evacuation

07.06.01.01 Bb

The candidate can describe the instructions regarding evacuation

07.06.01.01.01 • Where are the assembly point(s)?

07.06.01.01.02 • What are the evacuation possibilities?

07.06.01.01.03 • What are the customer's instructions?

07.06.02 VOL VCA / VIL VCU

The candidate can state the legal rules for holding an evacuation drill

07.06.02.01 Ff

The candidate can state the legal rules for holding an evacuation drill

07.06.02.01.01 • The candidate knows that at least once a year an evacuation drill must be organised

07.06.02.01.02 • The candidate knows that it is obligatory to participate in drills at customers

07.06.03 Basis / VOL VCA / VIL VCU

The candidate knows what he must do in case of alarm

07.06.03.01 Ff

The candidate can state the actions he must take and the sequence in which to take them in the event of an evacuation signal

07.06.03.01.01 • Immediately stop work, stop external communication

07.06.03.01.02 • Follow the instructions of the customer

07.06.03.01.03 • Go to the assembly point, in accordance with the evacuation plan

07.06.03.01.04 • Do not use any lifts

07.06.03.01.05 • Evacuate across the wind direction, away from the source

07.06.03.01.06 • On arrival at the assembly point report presence

07.06.04 VOL VCA / VIL VCU

The candidate can describe what information the contractor's employee or the temporary agency worker must receive during his introduction regarding the company emergency plan

07.06.04.01 Bb

The candidate can describe what information the contractor's employee or the temporary agency worker must receive during his introduction regarding the evacuation plan and the first intervention

07.06.04.01.01 • Routes

07.06.04.01.02 • Warning equipment

07.06.04.01.03 • Alarm: types

07.06.04.01.04 • Drills and emergency situations

07.06.04.01.05 • Raising the alarm, reporting an emergency situation and reporting when an emergency situation is no longer present

07.06.04.01.06 • Warn internal and external emergency services

07.06.04.01.07 • First Aid equipment

Final attainment level and test criteria for VCA

07.06.04.02 Bb  
(moved to 07.06.04.01)

## 08. Hazardous materials

### 08.01 The dangers of excessively low or high oxygen concentrations in the air for humans and the surroundings

#### 08.01.01 Basis / VOL VCA / VIL VCU

The candidate can describe the hazards of excessively high or low oxygen concentrations in the air

##### 08.01.01.01 Ff

The candidate can state the oxygen concentration in the air in normal conditions

- 08.01.01.01.01 • 21%

##### 08.01.01.02 Ff

The candidate can state the minimum oxygen concentration in the air to allow work to be done

- 08.01.01.02.01 • 19%

##### 08.01.01.03 Bb

The candidate can describe the effects of oxygen concentrations that are outside of the normal range

- 08.01.01.03.01 • Higher than 21%: increased fire and explosion hazard

- 08.01.01.03.02 • Lower than 21% : lack of oxygen, effects depend on the percentage: dazedness, unconsciousness and death

##### 08.01.01.04 Ff

The candidate can state the conditions that can cause an oxygen concentration that is too low

- 08.01.01.04.01 • Lack of ventilation

- 08.01.01.04.02 • Corrosion

- 08.01.01.04.03 • Other reactions in which oxygen is used: e.g. bacteriological and biological reactions, fire

- 08.01.01.04.04 • Substances that are released into a room and as a result displace oxygen (e.g. nitrogen, other inert gases)

##### 08.01.01.05 Ff

The candidate can state the conditions that can cause an oxygen concentration that is too high

- 08.01.01.05.01 • Oxygen leaking from pipes, oxygen cylinders

##### 08.01.01.06 Ff

The candidate can state measures that can be taken to work in an area that has an oxygen concentration that is too low

- 08.01.01.06.01 • Eliminate the lack of oxygen by mechanically ventilating the room

- 08.01.01.06.02 • Use self-contained breathing apparatus

##### 08.01.01.07 Ff

The candidate can state measures to prevent oxygen concentrations in the room that are too high

- 08.01.01.07.01 • Use hose break protection

- 08.01.01.07.02 • No oxygen cylinders in the area (e.g. confined space)

### 08.02 Classification and dangers of hazardous materials

#### 08.02.01 Basis / VOL VCA / VIL VCU

The candidate can describe the classification of hazardous materials and their harmful effect

#### 08.02.01.01 Ff

The candidate can state the categories of hazardous substances

- 08.02.01.01.01 • Explosive
- 08.02.01.01.02 • Oxidising
- 08.02.01.01.03 • Extremely flammable, highly flammable, flammable
- 08.02.01.01.04 • Toxic, very toxic
- 08.02.01.01.05 • Harmful
- 08.02.01.01.06 • Irritant
- 08.02.01.01.07 • Corrosive
- 08.02.01.01.08 • Carcinogenic
- 08.02.01.01.09 • Environmentally hazardous
- 08.02.01.01.10 • Sensitizing

#### 08.02.01.02 Bb

The candidate can describe the definition of the concept of hazardous substances

- 08.02.01.02.01 • Materials that pose a danger to health and/or to the environment

#### 08.02.01.03 Bb

The candidate can describe what the hazards are related to working with hazardous substances from the various categories, can give examples and can recognise the associated symbol on the packaging

- 08.02.01.03.01 • Explosive materials explode easily, also without the action of oxygen, at a certain temperature, in contact with other substances, in the event of shock or friction, e.g. ammunition, TNT, gunpowder
- 08.02.01.03.02 • Extremely and highly flammable materials ignite very easily, even at normal ambient temperatures (21°C), e.g. Petrol, acetone, white spirit
- 08.02.01.03.03 • Oxidising materials or those that promote fire release oxygen and therefore react fiercely with other (flammable) materials and promote fire, e.g. oxygenated water/hydrogen peroxide, ozone, oxygen
- 08.02.01.03.04 • Very toxic and toxic substances pose a substantial risk of serious problems if breathed in, swallowed or when absorbed through the skin, e.g. carbon monoxide, H<sub>2</sub>S, methanol, benzene
- 08.02.01.03.05 • Hazardous substances pose fewer problems than toxic substances when breathed in, swallowed or when absorbed through the skin, e.g. paint, lacquer, wood protection products
- 08.02.01.03.06 • Corrosive substances affect the skin, eyes, lungs and mucous membranes in the event of contact, e.g. acids and bases
- 08.02.01.03.07 • Irritating substances have less impact than corrosive products. They can cause infections in the event of contact with the skin, eyes, lungs and the mucous membranes, e.g. diluted or weak acids and bases, many solvents, polyester mastic
- 08.02.01.03.08 • Carcinogenic substances can lead to cancer, e.g. asbestos, benzene, vinyl chloride, diesel fumes
- 08.02.01.03.09 • Environmentally hazardous substances pose a danger to the environment and animals, e.g. CFCs, certain pesticides

## Final attainment level and test criteria for VCA

- 08.02.01.03.10 • Sensitizing materials can cause allergies, e.g. certain resins and colorants, some paints, metal treatment products, hair-dyes

### 08.02.02 Basis / VOL VCA / VIL VCU

The candidate can make a rough distinction between the use and the transport of hazardous substances around the workplace

#### 08.02.02.01 Bb

The candidate can make a rough distinction between the use and the transport of hazardous substances around the workplace

- 08.02.02.01.01 • When transported around the workplace, the danger posed by the transport is also taken into account

## 08.03 Exposure to, ingestion of and mode of action of hazardous materials

### 08.03.01 VOL VCA / VIL VCU

The candidate can name the measures that must be taken in sequence to prevent or limit the exposure to hazardous substances

#### 08.03.01.01 Ff

The candidate can name the measures that must be taken in sequence to prevent or limit the exposure to hazardous substances

- 08.03.01.01.01 • Firstly, measures focused on the source (use other products, use tablets instead of loose material)

- 08.03.01.01.02 • Secondly, technical, collective and organisational measures (local extraction, ventilation)

- 08.03.01.01.03 • Thirdly, personal protection equipment

### 08.03.02 Basis / VOL VCA / VIL VCU

The candidate can describe the measures for preventing or limiting exposure to hazardous substances

#### 08.03.02.01 Bb

The candidate can describe the measures that can be taken at the source to prevent exposure to hazardous substances

- 08.03.02.01.01 • Elimination: by not using a hazardous substance

- 08.03.02.01.02 • Replacement: replacing the substance with a less hazardous substance (e.g. paint containing solvents by water-based paint)

- 08.03.02.01.03 • Adaptation (e.g. not using the raw material as a powder but in tablet form)

#### 08.03.02.02 Bb

The candidate can describe the measure of local extraction to prevent exposure to hazardous substances

- 08.03.02.02.01 • Extraction of the hazardous vapour, gas or dust particles immediately from the location where the contamination is created, e.g. when welding

#### 08.03.02.03 Bb

The candidate can describe the measure related to separating humans from the source to prevent exposure to hazardous substances

- 08.03.02.03.01 • Physical separation of humans from the hazardous substances or chemical processes by for instance a wall, closed reactor vessels, a fume cupboard

#### 08.03.02.04 Bb

## Final attainment level and test criteria for VCA

The candidate can describe the measure of ventilation to prevent exposure to hazardous substances

- 08.03.02.04.01 • Extraction of contaminated air to the outside and supplying clean air to inside

### 08.03.02.05 Ff

The candidate can state the factors that are important in using a personal monitor

- 08.03.02.05.01 • Wear at chest level and not underneath clothing
- 08.03.02.05.02 • Test before use, or must have been tested before use
- 08.03.02.05.03 • Actions to be taken in case of an alarm

### 08.03.03 Basis / VOL VCA / VIL VCU

The candidate can describe the way in which hazardous compounds are absorbed by the body

#### 08.03.03.01 Ff

The candidate can state the routes of absorption of hazardous substances

- 08.03.03.01.01 • Through the mouth
- 08.03.03.01.02 • Through the skin
- 08.03.03.01.03 • Through the respiratory organs
- 08.03.03.01.04 • Direct absorption in the bloodstream

#### 08.03.03.02 Bb

The candidate can describe the manner in which hazardous substances are absorbed

- 08.03.03.02.01 • Eating and drinking with dirty hands
- 08.03.03.02.02 • Touching solvents or solvents in paint
- 08.03.03.02.03 • Breathing in dust, gas, mist or vapour
- 08.03.03.02.04 • Through an open wound

#### 08.03.03.03 Bb

The candidate can describe the personal hygiene measures used to prevent the absorption of hazardous substances

- 08.03.03.03.01 • Eating and drinking in a special room?  
Taking off dirty work clothing (dirt and dust collect in the clothing)?  
Washing hands and face ?  
Cleaning, treating and covering a wound as quickly as possible
- 08.03.03.03.02 • Use of effective personal protection equipment

### 08.03.04 VOL VCA / VIL VCU

The candidate can state the factors that influence poisoning

#### 08.03.04.01 Ff

The candidate can state the ambient and product factors that influence the absorption of hazardous substances into the body

- 08.03.04.01.01 • State or occurrence of the substance (dust, mist, gas, vapour, solid, liquid)
- 08.03.04.01.02 • Toxicity of the substance
- 08.03.04.01.03 • Concentration of the substance in the air breathed in
- 08.03.04.01.04 • Duration of exposure to the substance

#### 08.03.04.02 Ff

The candidate can state the human factors that influence the degree of poisoning and damage due to hazardous substances

## Final attainment level and test criteria for VCA

08.03.04.02.01 • Physical exertion: when performing strenuous work, you breath deeper and faster and therefore will inhale more of the hazardous substance

08.03.04.02.02 • The fitness of the victim: fitter people have more resistance

08.03.04.02.03 • The weight of the victim: the heavier the person the less influence the substance normally has

08.03.04.02.04 • The candidate can state the human factors that influence the degree of poisoning and damage due to hazardous substances. The age of the victim: young and old people are usually affected to a greater degree

08.03.04.02.05 • The size of the exposed skin area: the larger the skin area that has been in contact with the substance, the greater the impact

08.03.04.02.06 • The thickness of the skin: the thinner the skin that has been in contact with the substance, the greater the impact

08.03.04.02.07 • Sensitivity: some people are more sensitive to certain substances than others

### 08.03.05 VOL VCA / VIL VCU

The candidate can describe the absorption and effects of hazardous compounds in the body

#### 08.03.05.01 Ff

The candidate can state the effects of hazardous substances in the body

08.03.05.01.01 • Headache

08.03.05.01.02 • Dizziness

08.03.05.01.03 • Balance disorders

08.03.05.01.04 • Stomach cramps

08.03.05.01.05 • Nausea

08.03.05.01.06 • Queasiness

08.03.05.01.07 • Heart palpitations

08.03.05.01.08 • Tightness of the chest

08.03.05.01.09 • Blurred or double vision

08.03.05.01.10 • Allergy

#### 08.03.05.02 Bb

The candidate can describe two types of poisoning

08.03.05.02.01 • Acute poisoning: poisoning occurs rather rapidly during or directly after the exposure to the hazardous substance (e.g. CO poisoning)

08.03.05.02.02 • Chronic poisoning: poisoning due to long-term or repeated exposure to the hazardous substance (e.g. solvents, heavy metals in low doses)

## 08.04 Meaning of threshold values and perception of odours

### 08.04.01 Basis / VOL VCA / VIL VCU

The candidate can describe the significance of threshold values

#### 08.04.01.01 Bb

The candidate can describe the definition of the threshold limit value for exposure due to work

08.04.01.01.01 • The maximum concentration of a hazardous substance as time-weighted average over a reference period, above which no employee must be exposed

#### 08.04.01.02 Ff

The candidate can state the conditions for which the threshold limit values apply

## Final attainment level and test criteria for VCA

- 08.04.01.02.01 • For normal, healthy people
- 08.04.01.02.02 • On a normal working day
- 08.04.01.02.03 • In a normal working week
- 08.04.01.02.04 • In normal working conditions
- 08.04.01.02.05 • During normal physical exertion

### 08.04.02 Basis / VOL VCA / VIL VCU

The candidate can describe why the sense of smell is not a good indicator for the presence or absence of dangerous gases

#### 08.04.02.01 Bb

The candidate can describe why the sense of smell is not a good indicator for the presence or absence of hazardous gases

- 08.04.02.01.01 • Many hazardous vapours or gases have no odour or colour
- 08.04.02.01.02 • The smell limit can be above the accepted threshold limit value
- 08.04.02.01.03 • The smell of the hazardous substance can be masked by other non-hazardous substances
- 08.04.02.01.04 • Smell is subjective or dependent on the person

## 08.05 Labelling, hazard pictograms and product information

### 08.05.01 Basis / VOL VCA / VIL VCU

The candidate knows what the label contains

#### 08.05.01.01 Ff

The candidate can identify which elements need to be applied to the old hazardous substance level

- 08.05.01.01.01 • Name (names) of the product(s)
- 08.05.01.01.02 • Hazard pictogram
- 08.05.01.01.03 • R phrases
- 08.05.01.01.04 • S phrases
- 08.05.01.01.05 • Details of the supplier/ importer

#### 08.05.01.02 Ff

The candidate can state the elements that must be shown on the new hazardous substance label

- 08.05.01.02.01 • Name (names) of the product(s)
- 08.05.01.02.02 • Hazard pictograms
- 08.05.01.02.03 • Risks and hazards (H phrases)
- 08.05.01.02.04 • Precautionary measures – safety recommendations (P phrases)
- 08.05.01.02.05 • Details of the supplier/ importer

### 08.05.02 Basis / VOL VCA / VIL VCU

The candidate can describe the meaning of the hazard pictograms for hazardous materials

#### 08.05.02.01 Ff

The candidate can recognise the hazard pictograms of hazardous substances (comment – bring in line with GHS directive)

- 08.05.02.01.01 • Explosive substances
- 08.05.02.01.02 • Highly and extremely flammable substances
- 08.05.02.01.03 • Oxidizing substances



## Final attainment level and test criteria for VCA

- 08.05.02.01.04 • Toxic and very toxic substances
- 08.05.02.01.05 • Harmful and irritating substances
- 08.05.02.01.06 • Corrosive substances
- 08.05.02.01.07 • Environmentally hazardous substances
- 08.05.02.01.08 • Health risk in the longer term
- 08.05.02.01.09 • Gases under pressure

### 08.05.02.02 Ff

The candidate is able to recognise the asbestos pictogram

### 08.05.03 Basis / VOL VCA / VIL VCU

The candidate can describe the use and meaning of the R and S phrases (risk and safety) on the old labels

#### 08.05.03.01 Bb

The candidate can describe the meaning of the R phrases (risk) on the old labels

- 08.05.03.01.01 • The candidate can describe the meaning of the R phrases on the old labels

#### 08.05.03.02 Bb

The candidate can describe the use and meaning of the S phrases (safety) on the old labels

- 08.05.03.02.01 • The measures to take to avoid risks when working with the product (S = Safety)

### 08.05.04 VOL VCA / VIL VCU

The candidate can describe the risks associated with a compound, based on the safety information sheet

#### 08.05.04.01 Bb

The candidate can describe the purpose of the material safety data sheet

- 08.05.04.01.01 • To provide information about the hazards of the substance concerned
- 08.05.04.01.02 • To provide information regarding the safety measures to take

#### 08.05.04.02 Ff

The candidate can state the key points on a material safety data sheet

- 08.05.04.02.01 • Maximum Acceptable Concentration (MAC)
- 08.05.04.02.02 • Composition
- 08.05.04.02.03 • Manner of intake
- 08.05.04.02.04 • Manner of storage
- 08.05.04.02.05 • Direct hazards
- 08.05.04.02.06 • Labelling
- 08.05.04.02.07 • First aid

#### 08.05.04.03 Bb

The candidate can describe the meaning of the four sections of the hazard diamond

- 08.05.04.03.01 • Red section (top): Flammability
- 08.05.04.03.02 • Blue section (left): Health
- 08.05.04.03.03 • Yellow section (right): Reactivity
- 08.05.04.03.04 • White section (bottom): reaction with fire water and possibly specific hazards

#### 08.05.04.04 Bb

The candidate can describe the meaning of the numbers in the hazard diamond

- 08.05.04.04.01 • Number from 0 to 4, the higher the number the greater the hazard

## Final attainment level and test criteria for VCA

### 08.05.05 VOL VCA / VIL VCU

The candidate can describe the use and meaning of the hazard and safety recommendations(phrases) on the new labels

#### 08.05.05.01 Bb

The candidate can describe the meaning of hazard phrases on the new labels

08.05.05.01.01 • The hazards (or risks) that can be associated with a substance/product

#### 08.05.05.02 Bb

The candidate can describe the meaning of safety recommendations on the new labels

08.05.05.02.01 • The measures to take to avoid risks when working with the product

## 08.06 (expired April 2011)

### 08.06.01 Basis / VOL VCA / VIL VCU

(expired April 2011)

## 08.07 Monitoring and medical examinations

### 08.07.01 VOL VCA

(expired April 2011)

### 08.07.02 VOL VCA

The candidate can describe the concept of monitoring during work

#### 08.07.02.01 Bb

The candidate can describe the concept and objective of monitoring during work

08.07.02.01.01 • Monitoring is used to measure the possible exposure to hazardous substances when working, for a short and/or longer period, and to assess the results based on the threshold limit values to estimate and prevent the chance of health damage during this work

### 08.07.03 Basis / VOL VCA / VIL VCU

The candidate can describe what medical suitability means when working with hazardous materials

#### 08.07.03.01 Bb

The candidate can describe medical suitability means when working hazardous materials

08.07.03.01.01 • Based on the exposure and the state of the worker's health an investigation determines whether he is and will remain suitable

### 08.07.04 Basis / VOL VCA / VIL VCU

The candidate can describe the concept and objective of the periodic medical examination when working with hazardous materials

#### 08.07.04.01 Ff

The candidate can describe the concept and objective of the periodic medical examination when working with hazardous materials

08.07.04.01.01 • Medical examinations must determine whether the employee remains suitable to continue to work with the hazardous substance

08.07.04.01.02 • Periodicity depends on the product and the exposure, for most materials it is once a year

## 08.08 Specific hazardous materials

### 08.08.01 VOL VCA / VIL VCU

The candidate can describe the asbestos legislation and the procedure if

## asbestos appears to be present

### 08.08.01.01 BE / Bb

The candidate can describe the legal stipulations with respect to asbestos

- 08.08.01.01.01 • Every company must make an inventory of the asbestos present in the company; if there is asbestos present, the employer draws up a control programme to keep the exposure to asbestos as low as possible
- 08.08.01.01.02 • New use and processing of asbestos is prohibited
- 08.08.01.01.03 • Waste containing asbestos must be collected and disposed of separately
- 08.08.01.01.04 • A specific label is displayed where asbestos is present, (this applies to everything included in the inventory as well as for the recipient of asbestos waste)
- 08.08.01.01.05 • If there is a possibility that the employees are exposed to risks related to asbestos, the company must receive a copy of the asbestos inventory
- 08.08.01.01.06 • The use of high-speed mechanical equipment (high pressure cleaners, air compressors, dry blasting equipment, sanding discs and grinders) to process, cut or clean asbestos (-containing) material or to remove asbestos is prohibited

### 08.08.01.02 BE / Bb

The candidate can describe the conditions a company must meet that works with asbestos or removes asbestos

- 08.08.01.02.01 • The company must be acknowledged and have a certified quality assurance system
- 08.08.01.02.02 • Personnel who remove asbestos must have had basic training and follow annual refresher courses and the foreman, in addition to the basic training, must follow an annual refresher course (which focuses on his specific tasks)
- 08.08.01.02.03 • For simple activities, no accreditation is necessary and limited training is sufficient
- 08.08.01.02.04 • The work must be reported in writing to Toezicht Welzijn (welfare supervision) at the work and to the prevention consultant - company doctor
- 08.08.01.02.05 • There must be an approved work plan

### 08.08.01.03 BE / Ff

The candidate can state the specific obligation with respect to temporary agency workers

- 08.08.01.03.01 • In Belgium, temporary agency workers are not allowed to perform activities related to asbestos removal

### 08.08.01.04 NL / Bb

The candidate can describe the legal stipulations with respect to asbestos

- 08.08.01.04.01 • New use and processing of asbestos is prohibited
- 08.08.01.04.02 • Waste containing asbestos must be collected and disposed of separately
- 08.08.01.04.03 • Where there is a risk of contact with asbestos, a specific label is applied

### 08.08.01.05 NL / Ff

The candidate can state asbestos products that need not be removed by certified companies

- 08.08.01.05.01 • Gaskets that can be removed without breaking/machining
- 08.08.01.05.02 • Fixed (bonded) asbestos products that can be removed without breaking
- 08.08.01.05.03 • This work may only be carried out by appropriately trained people (Expert in

## Final attainment level and test criteria for VCA

Asbestos Removal)

### 08.08.01.06 Bb

The candidate can describe the health effects related to exposure to asbestos

- 08.08.01.06.01 • Chance of asbestosis
- 08.08.01.06.02 • Chance of asbestos-related lung cancer
- 08.08.01.06.03 • Chance of mesothelioma

### 08.08.02 VOL VCA / VIL VCU

The candidate can name possible locations of asbestos and describe which working method is to be followed

#### 08.08.02.01 Bb

The candidate can describe which working method is to be followed in locations where asbestos may be present

- 08.08.02.01.01 • Heat insulation on a range of appliances and equipment
- 08.08.02.01.02 • Flanges and bearing seals
- 08.08.02.01.03 • The materials used to make steel structures and above-ground tank structures fire-resistant
- 08.08.02.01.04 • In and behind the brickwork of furnaces and boilers and structures of above-ground tanks
- 08.08.02.01.05 • Insulation in electrical equipment
- 08.08.02.01.06 • In fire-resistant blankets
- 08.08.02.01.07 • Brake linings
- 08.08.02.01.08 • Sewer pipes
- 08.08.02.01.09 • Sealing material
- 08.08.02.01.10 • Roofing material and wall cladding
- 08.08.02.01.11 • Floor covering

#### 08.08.02.02 Bb

The candidate can describe which working method is to be followed in locations where asbestos may be present

- 08.08.02.02.01 • A risk assessment based on an asbestos inventory must have been carried out
- 08.08.02.02.02 • Any exclusions in the asbestos inventory do not concern the location where the work is to be done

### 08.08.03 Basis / VOL VCA / VIL VCU

The candidate can describe the working method in handling materials that are suspected to contain asbestos

#### 08.08.03.01 Bb

The candidate can describe the working method in handling materials that are suspected to contain asbestos

- 08.08.03.01.01 • Before any work is carried out in locations where asbestos may be present, an assessment is to take place of the risk of exposure to asbestos. This assessment is to be based on an asbestos inventory.
- 08.08.03.01.02 • If there is a suspicion that asbestos is present, the work must be immediately halted
- 08.08.03.01.03 • Alert the operational supervisor and the client
- 08.08.03.01.04 • The client has a sample taken by an independent laboratory to determine

## Final attainment level and test criteria for VCA

whether asbestos is concerned

08.08.03.01.05 • If asbestos is present, remove in accordance with statutory instructions

### 08.08.03.02 Bb

(moved to 08.08.01.06)

### 08.08.04 Basis / VOL VCA / VIL VCU

The candidate can name the harmful effects of organic solvents, cyclic compounds, heavy metals, carbon monoxide, paints and lacquers, cement and quartz dust

#### 08.08.04.01 Ff

The candidate can give examples of organic solvents, cyclic compounds and heavy metals

08.08.04.01.01 • Organic solvents: often made from crude oil, for instance white spirit

08.08.04.01.02 • Cyclic compounds: are often used as solvents, for instance benzene, phenol, toluene and xylene

08.08.04.01.03 • Heavy metals: for instance lead, mercury and zinc

#### 08.08.04.02 Ff

The candidate can state the harmful effects of organic solvents, cyclic compounds, heavy metals, carbon monoxide, paints and lacquers, cement and quartz dust

08.08.04.02.01 • Organic solvents: through inhalation, headache in the short term, brain damage in the long term

08.08.04.02.02 • Cyclic compounds: benzene and phenol are toxic, benzene is also carcinogenic

08.08.04.02.03 • Heavy metals: very toxic

08.08.04.02.04 • Carbon monoxide: very toxic by inhalation, prevents oxygen intake into the blood and explosion hazard

08.08.04.02.05 • Paints and lacquers (see organic solvents)

08.08.04.02.06 • Cement: irritating to the respiratory system and the skin, risk of eye injury, in wet condition chemical burns in the event of long-term contact

08.08.04.02.07 • Quartz dust: prolonged inhalation may lead to pneumoconiosis

### 08.08.05 Basis / VOL VCA / VIL VCU

The candidate can state the dangers of domestic cleaning materials

#### 08.08.05.01 Ff

The candidate can state the hazards of domestic cleaning materials

08.08.05.01.01 • Agents for unblocking drains: (caustic soda) corrosive

08.08.05.01.02 • Paints, varnishes: possibly containing organic solvents

08.08.05.01.03 • Organic solvents: flammable or highly flammable, in the event of long-term use brain damage, degreases the skin (e.g. white spirit)

08.08.05.01.04 • Detergents for dishwasher: irritating, chance of eye injury

## 08.09 Leaks and biological materials

### 08.09.01 Basis / VOL VCA / VIL VCU

The candidate can state the dangers and causes of leaks and can describe corrective and preventative measures

#### 08.09.01.01 Ff

The candidate can state the consequences of leaks

## Final attainment level and test criteria for VCA

- 08.09.01.01.01 • Spread of product in the air breathed in
- 08.09.01.01.02 • Fire hazard
- 08.09.01.01.03 • Environmental contamination
- 08.09.01.01.04 • Slipping

### 08.09.01.02 Ff

The candidate can state the causes of leaks

- 08.09.01.02.01 • Poor maintenance of systems
- 08.09.01.02.02 • Incorrect installation of flanges
- 08.09.01.02.03 • Erroneous procedure when transferring from one container to another
- 08.09.01.02.04 • Leaking taps/ seals
- 08.09.01.02.05 • Damage (e.g. fork-lift truck collision)

### 08.09.01.03 Ff

The candidate can state preventive measures to be taken against leaks and corrective measures to be taken after leaks have occurred

- 08.09.01.03.01 • Regularly check whether the system is in order
- 08.09.01.03.02 • Only allow trained personnel to perform repairs and activities
- 08.09.01.03.03 • Every starting leak must be reported
- 08.09.01.03.04 • Sufficiently large leak trays under tanks
- 08.09.01.03.05 • Professional repair of leaks
- 08.09.01.03.06 • Professional removal of spilt product

## 08.09.02 Basis / VOL VCA / VIL VCU

The candidate can state the hazards and the preventative measures for working with biological materials or substances containing biological materials

### 08.09.02.01 Ff

The candidate can state situations/conditions in which biological substances can be present that can cause harm

- 08.09.02.01.01 • Waste processing
- 08.09.02.01.02 • Health care
- 08.09.02.01.03 • Agriculture
- 08.09.02.01.04 • Food and beverage industry
- 08.09.02.01.05 • Contact with animals
- 08.09.02.01.06 • Sewers
- 08.09.02.01.07 • Water treatment plants
- 08.09.02.01.08 • Contaminated soil
- 08.09.02.01.09 • Pharmaceutical industry
- 08.09.02.01.10 • Biotechnology industry

### 08.09.02.02 Ff

The candidate can state forms of health damage caused by biological substances

- 08.09.02.02.01 • Infections / diseases
- 08.09.02.02.02 • Poisoning
- 08.09.02.02.03 • Allergy
- 08.09.02.02.04 • Fungal infection
- 08.09.02.02.05 • Parasites

### 08.09.02.03 Ff

The candidate can state the specific precautionary measure for working with biological substances

- 08.09.02.03.01 • Skin protection, including: Protective clothing, Gloves, Protective cream
- 08.09.02.03.02 • Eye protection in the event of a risk of splashes
- 08.09.02.03.03 • Breathing apparatus
- 08.09.02.03.04 • Washing hands
- 08.09.02.03.05 • Vaccinations

## 08.10 Industrial gas cylinders

### 08.10.01 Basis / VOL VCA / VIL VCU

The candidate can state the principle of the colour-coding of gas cylinders and important gases

#### 08.10.01.01 Ff

The candidate can state the principle used to distinguish gases in cylinders from each other

- 08.10.01.01.01 • Colour coding in accordance with the old and the new code

#### 08.10.01.02 Ff

The candidate can state the colour code on cylinders containing oxygen, nitrogen, carbon dioxide, air and acetylene

- 08.10.01.02.01 • Oxygen (white shoulder)
- 08.10.01.02.02 • Nitrogen (black shoulder)
- 08.10.01.02.03 • Carbon dioxide (grey shoulder)
- 08.10.01.02.04 • Air (light green shoulder)
- 08.10.01.02.05 • Acetylene (chestnut brown shoulder)

#### 08.10.01.03 Ff

The candidate can state points that must be borne in mind with respect to the use of the correct gas cylinder

- 08.10.01.03.01 • Inspect the colour code of the cylinder
- 08.10.01.03.02 • Verify by reading the label

### 08.10.02 VOL VCA / VIL VCU

(expired April 2011)

### 08.10.03 Basis / VOL VCA / VIL VCU

The candidate can describe the safety measures for the storage of gas cylinders

#### 08.10.03.01 Bb

The candidate can describe the safety measures for the storage of gas cylinders

- 08.10.03.01.01 • Secure properly
- 08.10.03.01.02 • Protect against negative weather influences
- 08.10.03.01.03 • Screen from sun and other radiated heat sources
- 08.10.03.01.04 • Do not set up series of gas cylinders at the workplace
- 08.10.03.01.05 • Sufficient ventilation of the storage location
- 08.10.03.01.06 • Do not store in/near cellars and excavations/wells (many gases are heavier than air and can remain 'hanging')
- 08.10.03.01.07 • Keep oxygen cylinders separate from cylinders containing flammable gases

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08.10.03.01.08 • Ensure there are the correct fire-fighting agents and water for use as a coolant near the storage location



## 09. Fire and explosion

### 09.01 Danger of fire and explosion

#### 09.01.01 Basis / VOL VCA / VIL VCU

The candidate can describe the factors needed for a fire or explosion to occur

##### 09.01.01.01 Bb

The candidate can describe the factors needed for a fire or explosion to occur

09.01.01.01.01 • Flammable substance

09.01.01.01.02 • Ignition energy

09.01.01.01.03 • Oxygen

#### 09.01.02 Basis / VOL VCA / VIL VCU

The candidate can describe the concepts of the flash point, spontaneous ignition temperature, explosion limits, explosion area and ignition source with respect to fires and explosions

##### 09.01.02.01 Bb

The candidate can describe the concept of flashpoint (ignition temperature)

09.01.02.01.01 • The lowest temperature at which a liquid develops so much flammable vapour that it can be ignited in the air that is present, under normal air conditions

##### 09.01.02.02 Bb

The candidate can describe the concept of explosion limits

09.01.02.02.01 • Minimum or maximum amount of gas/ vapour in the air which makes an explosion possible

09.01.02.02.02 • Limits of the explosion range

##### 09.01.02.03 Bb

The candidate can describe the concept of spontaneous ignition temperature

09.01.02.03.01 • The lowest temperature at which a substance ignites spontaneously without any outside influence, measured under normal air conditions

##### 09.01.02.04 Bb

The candidate can describe the concept of explosion range

09.01.02.04.01 • The range of ratios between air and gas/ vapour within which an explosion can occur

09.01.02.04.02 • The area between the upper and lower explosion limits

##### 09.01.02.05 Bb

The candidate can describe the concept of Lower Explosion Limit (LEL)

09.01.02.05.01 • Lower Explosion Limit

09.01.02.05.02 • The minimum concentration of gas/vapour that must be present in the air to cause an explosion

##### 09.01.02.06 Bb

The candidate can describe the concept of Upper Explosion Limit (UEL)

09.01.02.06.01 • "Upper Explosion Limit"

09.01.02.06.02 • The maximum concentration of gas/ vapour in the air at which an explosion can still occur

##### 09.01.02.07 Bb

The candidate can describe the concept of ignition source

## Final attainment level and test criteria for VCA

09.01.02.07.01 • An ignition source provides the energy needed for a substance to burn or explode

09.01.02.07.02 • Examples of ignition sources: naked flames and hot gases, mechanical sparks and welding sparks, electrical installations and equipment, hot surfaces, static electricity, lightning

### 09.01.02.08 Bb

The candidate can describe the concept of explosion

09.01.02.08.01 • An explosion is a very rapidly developing fire that releases a pressure wave

### 09.01.03 VOL VCA / VIL VCU

The candidate can describe the concept of catalysis

#### 09.01.03.01 Bb

The candidate can describe the concept of catalysis

09.01.03.01.01 • Certain products can influence the fire (reaction of fuel and oxygen): a positive catalyst promotes the reaction speed, therefore this will fan the fire

09.01.03.01.02 • Certain products can influence the fire (reaction of fuel and oxygen): a negative catalyst slows down the reaction speed, therefore this will slow down the fire

### 09.01.04 Basis / VOL VCA / VIL VCU

The candidate can describe the influence of a fire on the surroundings

#### 09.01.04.01 Bb

The candidate can describe the influence of smoke and combustion gases on the surroundings

09.01.04.01.01 • Limited visibility

09.01.04.01.02 • Possibly toxic or hazardous

09.01.04.01.03 • The combustion gases are lighter than air

#### 09.01.04.02 Bb

The candidate can describe the influence of heat due to fire on the surroundings

09.01.04.02.01 • Fire heats up products in the vicinity, as a result of which they can reach their spontaneous ignition temperature and ignite spontaneously

09.01.04.02.02 • Radiated heat heats up gas cylinders and reservoirs in the vicinity so that they can crack and explode

09.01.04.02.03 • Due to heat it is difficult to get closer to the fire

## 09.02 Classification of fires and the associated extinguishing equipment

### 09.02.01 Basis / VOL VCA / VIL VCU

The candidate can describe the classification of fire types

#### 09.02.01.01 Ff

The candidate can state the fire classes

09.02.01.01.01 • Class A: Fire involving solid materials

09.02.01.01.02 • Class B: Fire involving liquids

09.02.01.01.03 • Class C: Fire involving gases

09.02.01.01.04 • Class D: Fire involving combustible metals

09.02.01.01.05 • Non-classified fires

#### 09.02.01.02 Bb

The candidate can describe the fire classes

09.02.01.02.01 • A: fires involving solid substances, so called dry fires, for instance wood,

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paper, cotton, plastic, textile

09.02.01.02.02 • B: fires involving liquids or substances that become liquids, so called oily fires, for instance petrol, oil, alcohols, paints, rubber, paraffin, solvents

09.02.01.02.03 • C: fires involving gases, including methane, propane, butane, acetylene

09.02.01.02.04 • D: fires involving combustible metals, including magnesium, aluminium, potassium, sodium, metal alloys

09.02.01.02.05 • Non-classified fires such as fires in and on electrical appliances

### 09.02.02 Basis / VOL VCA / VIL VCU

The candidate can state the extinguishing agents for the types of fire

#### 09.02.02.01 Ff

The candidate can state the extinguishing methods for a Class A fire

09.02.02.01.01 • Extinguish using water

09.02.02.01.02 • Extinguish using fire extinguishing powder (in practice ABC powder)

09.02.02.01.03 • Extinguish using foam

09.02.02.01.04 • Can be used on burning products and persons and for fire on a flat surface

#### 09.02.02.02 Ff

The candidate can state the extinguishing methods for a Class B fire

09.02.02.02.01 • Extinguish using fire extinguishing powder (in practice ABC or BC powder)

09.02.02.02.02 • Extinguish using foam

09.02.02.02.03 • Extinguish using sand

#### 09.02.02.03 Ff

The candidate can name the extinguishing methods for a Class C fire

09.02.02.03.01 • Shut off gas supply

09.02.02.03.02 • Extinguish using fire extinguishing powder (in practice ABC or BC powder)

#### 09.02.02.04 Ff

The candidate can state the extinguishing methods for a Class D fire

09.02.02.04.01 • Extinguish using a specific extinguishing powder

#### 09.02.02.05 Ff

The candidate can state the extinguishing methods for a non-classified fire (for instance an electrical device)

09.02.02.05.01 • Extinguish using carbon dioxide

09.02.02.05.02 • Extinguish using modified foam

## 09.03 Extinguishing equipment

### 09.03.01 Basis / VOL VCA / VIL VCU

The candidate can name the extinguishing characteristics of the various fire extinguishers

#### 09.03.01.01 Bb

The candidate can describe the main fire extinguishing principles

09.03.01.01.01 • Switch off/ remove fuel

09.03.01.01.02 • Reduce ignition energy and remove heat by cooling

09.03.01.01.03 • Displace oxygen and oxygen occlusion

09.03.01.01.04 • Remove the ignition source

### 09.03.02 Basis / VOL VCA / VIL VCU

The candidate can state the dangers and disadvantages of the various fire

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### extinguishers

#### 09.03.02.01 Ff

The candidate can state the hazards and disadvantages of extinguishing using water

- 09.03.02.01.01 • Causes water damage
- 09.03.02.01.02 • Conducts electricity
- 09.03.02.01.03 • There are many chemical substances that react fiercely with water
- 09.03.02.01.04 • Hazardous if used on burning liquid: causes burning liquids to splatter resulting in jets of flame; many liquids float on water allowing the fire to spread
- 09.03.02.01.05 • Sensitive to freezing
- 09.03.02.01.06 • Environmental damage due to contaminated fire water

#### 09.03.02.02 Ff

The candidate can state the disadvantages of extinguishing using foam

- 09.03.02.02.01 • Causes limited damage
- 09.03.02.02.02 • Sensitive to freezing
- 09.03.02.02.03 • Foam can conduct electricity

#### 09.03.02.03 Ff

The candidate can state the disadvantages of extinguishing using sand

- 09.03.02.03.01 • Sand rapidly cakes on and hardens

#### 09.03.02.04 Ff

The candidate can state the disadvantages of extinguishing using extinguishing powder

- 09.03.02.04.01 • Has a limited cooling effect
- 09.03.02.04.02 • Reduces visibility in small areas
- 09.03.02.04.03 • Causes damage
- 09.03.02.04.04 • Contaminates

#### 09.03.02.05 Ff

The candidate can state the hazards and disadvantages of extinguishing using carbon dioxide

- 09.03.02.05.01 • Chance of freeze wounds due to low temperature
- 09.03.02.05.02 • Can create a suffocating atmosphere due to oxygen displacement

#### 09.03.02.06 Ff

The candidate can state the hazards and disadvantages of extinguishing using fire blankets

- 09.03.02.06.01 • One has to get close to the seat of the fire
- 09.03.02.06.02 • If not applied well: danger for the person fighting the fire
- 09.03.02.06.03 • If incorrectly or incompletely covered, there is a greater chance of injury and damage.

### 09.03.03 VOL VCA / VIL VCU

The candidate can name the properties of the various fire extinguishers

#### 09.03.03.01 Ff

The candidate can state the extinguishing characteristics of water

- 09.03.03.01.01 • Limited oxygen displacement due to steam
- 09.03.03.01.02 • Cooling ability

#### 09.03.03.02 Ff

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The candidate can state the extinguishing characteristics of foam

09.03.03.02.01 • Excludes oxygen from the seat of the fire

09.03.03.02.02 • Cools

### 09.03.03.03 Ff

The candidate can state the extinguishing characteristic of sand

09.03.03.03.01 • Excludes oxygen

### 09.03.03.04 Ff

The candidate can state the extinguishing characteristics of extinguishing powder

09.03.03.04.01 • Slows down the reaction between the flammable substance and oxygen, negative catalyst

09.03.03.04.02 • Excludes oxygen to a limited degree

### 09.03.03.05 Ff

The candidate can state the extinguishing characteristics of carbon dioxide

09.03.03.05.01 • Displaces oxygen

09.03.03.05.02 • Limited cooling capacity

### 09.03.03.06 Ff

The candidate can state the extinguishing characteristics of fire blankets

09.03.03.06.01 • Excludes oxygen

## 09.04 How to act in the event of a fire

### 09.04.01 Basis / VOL VCA / VIL VCU

The candidate can describe the actions to take in the event of a fire

#### 09.04.01.01 Bb

The candidate can describe the actions to take when a fire is detected

09.04.01.01.01 • Ensure your own safety

09.04.01.01.02 • Report the fire

09.04.01.01.03 • Warn the people in the vicinity of the fire

09.04.01.01.04 • Close doors and windows

09.04.01.01.05 • Guide people to safety

09.04.01.01.06 • Extinguish the fire, if you can

#### 09.04.01.02 Bb

The candidate can describe the actions to take when extinguishing a fire

09.04.01.02.01 • Ensure your own safety at all times

09.04.01.02.02 • Choose the correct extinguishing agent

09.04.01.02.03 • Extinguish the fire

09.04.01.02.04 • Remain alert even when the fire appears to be extinguished, it can still fan up again

09.04.01.02.05 • If you cannot extinguish the fire, stop trying to do so and evacuate

#### 09.04.01.03 Bb

(expired April 2011)

#### 09.04.01.04 Bb

The candidate can describe the actions to take when treating burns

09.04.01.04.01 • As soon as possible, flush with water for at least 15 minutes

### 09.04.02 VOL VCA / VIL VCU

The candidate can state the tasks of the fire watch

## Final attainment level and test criteria for VCA

### 09.04.02.01 BE / Ff

The candidate can state the tasks of the fire watch

- 09.04.02.01.01 • Preventive actions to prevent a fire
- 09.04.02.01.02 • Supervise the requirements of the hot work permit
- 09.04.02.01.03 • In the event of a fire, call in emergency services
- 09.04.02.01.04 • Take action to extinguish a starting fire until the intervention team arrives
- 09.04.02.01.05 • Provide first aid

### 09.04.02.02 BE / Ff

The candidate can state the requirement placed on the fire attendant

- 09.04.02.02.01 • Specific training

### 09.04.03 VOL VCA / VIL VCU

The candidate can state the tasks of the hot work watch

#### 09.04.03.01 NL / Ff

The candidate can state the tasks of the hot work watch

- 09.04.03.01.01 • Preventive actions to prevent a fire
- 09.04.03.01.02 • Supervise the requirements of the hot work permit
- 09.04.03.01.03 • In the event of a fire, call in emergency services
- 09.04.03.01.04 • Take action to extinguish a starting fire until the intervention team arrives
- 09.04.03.01.05 • Provide first aid

#### 09.04.03.02 NL / Ff

The candidate can state the requirement placed on the hot work watch

- 09.04.03.02.01 • Specific training

## 09.05 Environments with an explosion risk

### 09.05.01 Basis / VOL VCA / VIL VCU

The candidate knows what an explosion risk environment is and can recognise such an environment

#### 09.05.01.01 Bb

The candidate can name explosion risk environments

- 09.05.01.01.01 • In this environment it is possible for an explosive mixture to arise
- 09.05.01.01.02 • In this environment special measures must be taken to prevent the ignition of explosive mixtures that may be present
- 09.05.01.01.03 • Branches/sectors where explosion risks may be present include: chemical industry, rubbish dumps, power plants, waste-processing companies, gas companies, timber-processing industry, agricultural businesses (biogas), metal-processing companies, food and feed industry, pharmaceutical industry, refineries, recycling companies

#### 09.05.01.02 Ff

The candidate knows the sign that indicates an explosion risk zone

- 09.05.01.02.01 • Warning sign displaying Ex

### 09.05.02 VOL VCA

The candidate knows which products can give rise to explosion risk environments and can describe the various zones

#### 09.05.02.01 Bb

The candidate can describe the various zones, for both gas and dust

- 09.05.02.01.01 • Zones 0, 1 and 2: gas

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09.05.02.01.02 • Zones 20, 21 and 22: dust

09.05.02.01.03 • The lower the figure, the higher the risk and the chance of an explosive atmosphere and the more stringent the requirements placed on the installations and activities

### 09.05.02.02 Ff

The candidate knows which products can give rise to explosion risk environments

09.05.02.02.01 • Flammable gases/ vapours

09.05.02.02.02 • Liquids with a flashpoint lower than the ambient temperature

09.05.02.02.03 • Dust clouds

### 09.05.02.03 Bb

The candidate can describe which specific regulations must be enforced in an explosion risk environment

09.05.02.03.01 • Approved, written permission for the execution of the task

09.05.02.03.02 • Prescribed personal protection equipment (safety shoes and safety clothing that do not generate static electricity)

09.05.02.03.03 • Equipment and activities in accordance with the work permit (explosion-safe equipment, cell phones and tools)

09.05.02.03.04 • Specific regulations and precautionary measures in accordance with the work permit

09.05.02.03.05 • Presence of written instructions

09.05.02.03.06 • Suitable training for the employees involved

## 09.05.03 VOL VCA

The candidate can name the factors that are important in using a stationary (fixed) explosion meter in explosion risk environments

### 09.05.03.01 Ff

The candidate can state the factors that are important in using a stationary (fixed) explosion meter in explosion risk environments

09.05.03.01.01 • When setting up, take account of: possible sources of released gas, wind direction, density of the gas, distance to the source

09.05.03.01.02 • In the event of an alarm given by the explosion meter, switch off ignition sources, leave the zone and notify

09.05.03.01.03 • In the event of another alarm and if applicable, switch off ignition sources, and leave the zone

## 09.05.04 Basis / VOL VCA / VIL VCU

The candidate can state the factors that are important in using a personal explosion meter in explosion risk environments

### 09.05.04.01 Ff

The candidate can state the factors that are important in using a personal explosion meter in explosion risk environments

09.05.04.01.01 • Wear at chest level and not underneath clothing

09.05.04.01.02 • Test before use, or must have been tested before use

09.05.04.01.03 • Actions to be taken in case of an alarm

## 10. Equipment

### 10.01 Machinery, powered tools and hand tools

#### 10.01.01 Basis / VOL VCA / VIL VCU

The candidate can describe the hazards, possible injuries, requirements, safety measures and requirements and requirements placed on the operator when working with machines, power tools and hand tools

##### 10.01.01.01 Bb

The candidate can describe the general hazards and possible injuries or damage when working with machines, power tools and hand tools

- 10.01.01.01.01 • Being caught by moving parts
- 10.01.01.01.02 • Being hit by flying material/ particles
- 10.01.01.01.03 • Getting trapped
- 10.01.01.01.04 • Electrocutation
- 10.01.01.01.05 • High or low temperature of the workpiece
- 10.01.01.01.06 • Hearing damage due to noise
- 10.01.01.01.07 • Physical complaints due to vibration
- 10.01.01.01.08 • Physical overloading due to incorrect posture
- 10.01.01.01.09 • Failure of the control system or energy source
- 10.01.01.01.10 • Distracting the operator
- 10.01.01.01.11 • Cuts or grazes
- 10.01.01.01.12 • Poor maintenance
- 10.01.01.01.13 • Dislocation of hand and wrist and bruises due to incorrect use
- 10.01.01.01.14 • Fire or explosion due to sparks
- 10.01.01.01.15 • Injury caused by the tool snagging
- 10.01.01.01.16 • Injury due to an air hose coming loose
- 10.01.01.01.17 • Machines taking a long time to slow down
- 10.01.01.01.18 • Touching cutting parts
- 10.01.01.01.19 • Inhalation of hazardous substances
- 10.01.01.01.20 • Flying nails (nailer/ stapler)
- 10.01.01.01.21 • Rebounding nail from hard material (nailer/ stapler)
- 10.01.01.01.22 • Penetrating workpiece with nail (nailer/ stapler)

##### 10.01.01.02 Ff

The candidate can state the requirements machines and power tools must meet in general

- 10.01.01.02.01 • Periodic inspection
- 10.01.01.02.02 • Period of validity shown by label or colour coding
- 10.01.01.02.03 • User and maintenance instructions in the language of the country where it is used
- 10.01.01.02.04 • After 1995, having a CE mark
- 10.01.01.02.05 • Moving parts are guarded
- 10.01.01.02.06 • Being in a good state of repair and being suitable for the work to be carried out

##### 10.01.01.03 Bb

The candidate can describe the general safety measures to take when working with machines, power tools and hand tools



## Final attainment level and test criteria for VCA

- 10.01.01.03.01 • Switched off during maintenance activities
- 10.01.01.03.02 • Never operate with drive guards open
- 10.01.01.03.03 • The floor around machines and permanently installed tools must be cleared up, clean, level, dry and not slippery
- 10.01.01.03.04 • There must be sufficient space to walk and manoeuvre around the machine to be able to operate it
- 10.01.01.03.05 • Personal protection equipment must be present and correctly used
- 10.01.01.03.06 • Operated in the correct manner
- 10.01.01.03.07 • Screening off of danger zone
- 10.01.01.03.08 • Brake to ensure that the machine does not take too long to slow down
- 10.01.01.03.09 • Powered manual tools are fitted with a dead man's switch
- 10.01.01.03.10 • Operating instruction card (machines) present
- 10.01.01.03.11 • Effective dust extraction (if applicable)

### 10.01.01.04 Bb

The candidate can describe the operation of the dead man's switch

- 10.01.01.04.01 • If you release the operating handle, the machine or tool stops

### 10.01.01.05 Bb

The candidate can describe the function of the emergency stop

- 10.01.01.05.01 • In the event of emergency, used to stop the machine as quickly as possible

### 10.01.01.06 Ff

The candidate can state the requirements the emergency stop must meet

- 10.01.01.06.01 • Easily accessible
- 10.01.01.06.02 • Clearly visible and recognisable
- 10.01.01.06.03 • After using the emergency stop, the system can only be restarted by using the normal start-up procedure

### 10.01.01.07 Bb

The candidate can describe the function of the no-load switch

- 10.01.01.07.01 • A no-load switch ensures that the machine does not start automatically after the power supply has failed and then returned

### 10.01.01.08 Ff

The candidate can state the safety measures to employ when operating machines and the requirements the operator of machines, power tools and hand tools must meet

- 10.01.01.08.01 • Sufficient training and experience
- 10.01.01.08.02 • Older than 18 years of age (for operating hazardous machines)
- 10.01.01.08.03 • Must not wear loose-fitting clothing, loosely-hanging jewellery or have loose hair
- 10.01.01.08.04 • Must not wear gloves if contact with rotating parts is possible and/or if there is a risk of becoming caught
- 10.01.01.08.05 • Must not bypass, take out of operation or remove safety devices
- 10.01.01.08.06 • Must not leave running machines unattended
- 10.01.01.08.07 • Must know the location and function of the emergency stop

## 10.02 Fixed machines

### 10.02.01 Basis / VOL VCA / VIL VCU

The candidate can describe the dangers, requirements and safety measures when working with fixed machines

#### 10.02.01.01 Bb

The candidate can describe the hazards and the possible injury or damage that can occur when working with (pillar) drills

- 10.02.01.01.01 • The workpiece becoming unclamped
- 10.02.01.01.02 • Injury due to the drill breaking
- 10.02.01.01.03 • Injury due to wiping away swarf with the hand
- 10.02.01.01.04 • Injury due to swarf
- 10.02.01.01.05 • Splashes of cooling oil or cutting oil

#### 10.02.01.02 Bb

The candidate can describe the requirements when working with (pillar) drills

- 10.02.01.02.01 • Transparent screen between drill and user

#### 10.02.01.03 Bb

The candidate can describe the precautionary measures to take when working with (pillar) drills

- 10.02.01.03.01 • Clamp workpiece securely
- 10.02.01.03.02 • Brush away swarf using a swarf brush or swarf hook

#### 10.02.01.04 Bb

The candidate can describe the hazards and the possible injury or damage that can occur when working with bench grinders

- 10.02.01.04.01 • Flying particles: eye injury
- 10.02.01.04.02 • Exploding grinding wheel
- 10.02.01.04.03 • The workpiece becoming trapped against the grinding wheel
- 10.02.01.04.04 • Injury due to touching a rotating grinding wheel
- 10.02.01.04.05 • Inhaling grinding dust

#### 10.02.01.05 Ff

The candidate can describe the requirements that bench grinders must meet

- 10.02.01.05.01 • Grinding wheels are sufficiently round
- 10.02.01.05.02 • The grinding surface of the wheel is flat
- 10.02.01.05.03 • Two grinding wheels on one machine should not differ too much in size
- 10.02.01.05.04 • The distance between the rest and the grinding wheel is a maximum of 3 mm
- 10.02.01.05.05 • The sides of the wheels are guarded
- 10.02.01.05.06 • Protective shield present

#### 10.02.01.06 Bb

The candidate can describe the precautionary measures to take when working with bench grinders

- 10.02.01.06.01 • Only professional personnel are allowed to install or replace the grinding wheels
- 10.02.01.06.02 • The rest must be regularly adjusted
- 10.02.01.06.03 • The rest must only be adjusted when the machine is stopped
- 10.02.01.06.04 • Protective shield must always be used

#### 10.02.01.07 Bb

The candidate can describe the hazards and the possible injury or damage that can

## Final attainment level and test criteria for VCA

occur when working with saw benches

10.02.01.07.01 • Getting hit or caught by the saw or other moving parts

10.02.01.07.02 • Getting hit by sawn of, flying parts of the product

10.02.01.07.03 • Health complaints due to inhaling hazardous dust

### 10.02.01.08 Ff

The candidate can describe the requirements that table circular saws must meet

10.02.01.08.01 • The machine must have a suitable guard, attached to a robust stand

10.02.01.08.02 • Riving knife and support present suitable for the saw blade

10.02.01.08.03 • Easily adjustable, suitable guide present

10.02.01.08.04 • One or more connections for dust extraction present

### 10.02.01.09 Bb

The candidate can describe the precautionary measures to take when working with saw benches

10.02.01.09.01 • Use a push stick to safely push/ guide small or narrow pieces of work

10.02.01.09.02 • Correctly adjust the saw blade

10.02.01.09.03 • For large pieces of work, use a second person or a roller conveyor

## 10.03 Powered hand-held tools

### 10.03.01 Basis / VOL VCA / VIL VCU

The candidate can describe the requirements that manual power tools must meet and the safety measures to take when working with manual power tools

#### 10.03.01.01 Ff

The candidate can state the requirements that electrically powered hand tools must meet

10.03.01.01.01 • Double insulated, not earthed

#### 10.03.01.02 Ff

The candidate knows the limitations of double insulation in damp conditions

10.03.01.02.01 • Double insulation offers no protection from water and a damp environment

#### 10.03.01.03 Bb

The candidate can describe the safety measures to take when working with pneumatically powered hand tools

10.03.01.03.01 • Take regular breaks when using vibrating tools

10.03.01.03.02 • Shut off air supply after use

#### 10.03.01.04 Ff

The candidate can state the requirements that hand-held grinders must meet

10.03.01.04.01 • Must have a handle on the side (dependent on the power of the hand-held grinder)

10.03.01.04.02 • Protective cover over the grinding disc

#### 10.03.01.05 Ff

The candidate can state what information must be present on a grinding disc

10.03.01.05.01 • The details include: the manufacturer's name, maximum allowable rotational speed, disc dimensions, application, year, specification of material for which the disc is intended

#### 10.03.01.06 Bb

The candidate can describe the safety measures to take when working with

## Final attainment level and test criteria for VCA

### hand-held grinders

- 10.03.01.06.01 • The workpiece must be clamped
- 10.03.01.06.02 • The maximum rpm of the disc must never be exceeded
- 10.03.01.06.03 • The hand-held grinder must only be put down when the disc has stopped rotating
- 10.03.01.06.04 • Do not use the side of a cutting disc (for instance for deburring)
- 10.03.01.06.05 • Use grinding discs for deburring
- 10.03.01.06.06 • Only use cutting discs for cutting, not for deburring

### 10.03.01.07 Ff

The candidate can state the requirements a hand-held circular saw must meet

- 10.03.01.07.01 • Protective guard completely covers the part of the saw that does not cut
- 10.03.01.07.02 • Automatic guard over the part of the saw that cuts
- 10.03.01.07.03 • Riving knife: suitable for the diameter and thickness of the saw

### 10.03.01.08 Ff

The candidate can describe the safety measures to take when working with a hand-held circular saw

- 10.03.01.08.01 • Adjust the saw blade and the guide so that the saw blade protrudes as little as possible under the workpiece to be cut
- 10.03.01.08.02 • If necessary, obtain assistance from a second person
- 10.03.01.08.03 • Do not allow the saw to jam
- 10.03.01.08.04 • Always keep the power cord behind the saw

### 10.03.01.09 Ff

The candidate can state the requirements that nailers/ staplers must meet

- 10.03.01.09.01 • Protection against undesired firing

### 10.03.01.10 Ff

The candidate can describe the safety measures to take when working with nailers/ staplers

- 10.03.01.10.01 • Check the maximum working pressure
- 10.03.01.10.02 • Guide empty when recharging
- 10.03.01.10.03 • Use staples or nails suitable for the machine, material and shape of the workpiece
- 10.03.01.10.04 • Keep the free hand far away from the machine
- 10.03.01.10.05 • Force the head onto the workpiece

### 10.03.01.11 Bb

The candidate can state the requirements a chain saw must meet

- 10.03.01.11.01 • Handles: vibration free with anti-slip
- 10.03.01.11.02 • Internal vibration damping
- 10.03.01.11.03 • Rear handle: protection against broken chain
- 10.03.01.11.04 • Protective bracket
- 10.03.01.11.05 • Chain brake with anti-kickback device
- 10.03.01.11.06 • Chain catch mechanism
- 10.03.01.11.07 • Double handed operation
- 10.03.01.11.08 • Protective guard (for the chain)
- 10.03.01.11.09 • Balanced

## Final attainment level and test criteria for VCA

- 10.03.01.11.10 • Locking the operating controls with automatic decoupling of the operating button

### 10.03.01.12 Ff

The candidate can describe the safety measures to take when working with a chain saw

- 10.03.01.12.01 • Operator has followed suitable training including a test
- 10.03.01.12.02 • Trousers and gloves made of fibre that is difficult to cut and that will block the saw
- 10.03.01.12.03 • Stand so that if the saw recoils the chain does not hit the body
- 10.03.01.12.04 • Use the correct saw blade / chain combination
- 10.03.01.12.05 • Always use two hands to operate the chain saw

## 10.04 Hand tools

### 10.04.01 Basis / VOL VCA / VIL VCU

The candidate can describe the requirements that hand tools must meet and the hazards and safety measures when working with hand tools

#### 10.04.01.01 Ff

The candidate can state the requirements a hammer must meet

- 10.04.01.01.01 • Head securely fixed to the handle
- 10.04.01.01.02 • Handle undamaged
- 10.04.01.01.03 • Head intact

#### 10.04.01.02 Ff

The candidate can state the requirements that spanners must meet

- 10.04.01.02.01 • Undamaged
- 10.04.01.02.02 • Jaw fits nut exactly

#### 10.04.01.03 Bb

The candidate can describe the safety measures to take when working with spanners

- 10.04.01.03.01 • Only extend the length using the correct accessories
- 10.04.01.03.02 • Preferably use a ring spanner instead of an open-ended spanner
- 10.04.01.03.03 • Slogging spanner has a cord to prevent it from falling/ flying away if it is knocked off

#### 10.04.01.04 Ff

The candidate can state the requirements that screwdrivers must meet

- 10.04.01.04.01 • Fits the screw slot exactly
- 10.04.01.04.02 • Blade not too sharp

#### 10.04.01.05 Bb

The candidate can describe the safety measures to take when working with screwdrivers

- 10.04.01.05.01 • Clamp small workpieces

#### 10.04.01.06 Ff

The candidate can state the requirements that files must meet

- 10.04.01.06.01 • The handle must be in good condition and be undamaged
- 10.04.01.06.02 • The handle must be securely attached to the file

#### 10.04.01.07 Ff

## Final attainment level and test criteria for VCA

The candidate can state the requirements that chisels must meet

10.04.01.07.01 • No burrs on the chisel head

10.04.01.07.02 • The chisel must be fitted with hand protection

**10.04.01.08 Ff**

The candidate can state the requirements that pliers must meet

10.04.01.08.01 • Jaw and hinge are intact and clean

**10.04.01.09 Ff**

The candidate can state the requirements that knives must meet

10.04.01.09.01 • The knife must suit the nature of the work

10.04.01.09.02 • Sharp knives

**10.04.01.10 Ff**

The candidate can describe the safety measures to take when working with knives

10.04.01.10.01 • Cut away from the body

10.04.01.10.02 • Do not slide an extendable blade out too far

10.04.01.10.03 • Break off the worn part of the blade using a blade breaker or pliers

**10.04.01.11 Ff**

The candidate can state the requirements that saws must meet

10.04.01.11.01 • The saw must be suitable for the work

**10.04.01.12 Ff**

The candidate can describe the safety measures to take when working with saws

10.04.01.12.01 • Only use well sharpened, sharp saw blades

10.04.01.12.02 • Good set of the saw

10.04.01.12.03 • Blade well tensioned

10.04.01.12.04 • Teeth facing forward

## 10.05 Hoisting in general

10.05.01 Basis / VOL VCA / VIL VCU

The candidate can describe the requirements that hoisting equipment and hoisting accessories must meet and the general hazards and safety measures when working with hoisting equipment and hoisting accessories

**10.05.01.01 Ff**

The candidate can give examples of hoisting equipment

10.05.01.01.01 • Cranes, tower cranes, rolling bridges, hand hoists

**10.05.01.02 Bb**

The candidate can describe what hoisting equipment is used for

10.05.01.02.01 • To move loads vertically and horizontally

**10.05.01.03 Bb**

The candidate can describe what hoisting accessories are

10.05.01.03.01 • Accessories for hoisting loads (e.g. eye bolts, shackles, hoisting slings, chains, cables)

**10.05.01.04 Ff**

The candidate can state the general requirements that hoisting equipment and accessories must meet

10.05.01.04.01 • They must be inspected, proof of inspection must be present, the inspection details must be recognisably marked on the hoisting equipment

## Final attainment level and test criteria for VCA

### 10.05.01.05 Bb

The candidate can describe where to find the details regarding the maximum load of hoisting equipment

- 10.05.01.05.01 • On the hoisting equipment, on a plate or ring, stamped into the material

### 10.05.02 Basis / VOL VCA / VIL VCU

The candidate can describe the requirements that must be met when hoisting and the hazards and safety measures when hoisting

#### 10.05.02.01 Bb

The candidate can describe the general hazards when working with hoisting equipment and hoisting accessories

- 10.05.02.01.01 • The hoisting equipment (e.g. crane) can topple over

- 10.05.02.01.02 • A load can fall

#### 10.05.02.02 Bb

The candidate can describe the general safety measures to take when working with hoisting equipment and hoisting accessories

- 10.05.02.02.01 • Do not exceed the allowed working load

- 10.05.02.02.02 • Attach the load in the correct manner

- 10.05.02.02.03 • Regularly check the material visually

- 10.05.02.02.04 • Keep the angle between the legs of a two or three legged bridle as small as possible

#### 10.05.02.03 Ff

The candidate can state when, based on the wind force, it is no longer allowed to hoist

- 10.05.02.03.01 • Observe the crane manufacturer's user instructions

#### 10.05.02.04 NL / Ff

(expired April 2011)

#### 10.05.02.05 Bb

The candidate can describe what determines the choice of hoisting accessory to use

- 10.05.02.05.01 • Dimension and shape of the load

- 10.05.02.05.02 • Distance to be moved

## 10.06 Hoisting equipment

### 10.06.01 Basis / VOL VCA / VIL VCU

The candidate can describe the requirements that hoisting equipment must meet and the specific hazards and safety measures when working with hoisting equipment

#### 10.06.01.01 Bb

The candidate can describe the hazards associated with working with hoisting equipment

- 10.06.01.01.01 • The hoisting equipment can fall over

- 10.06.01.01.02 • Being hit by equipment

- 10.06.01.01.03 • Getting hit within the turning cycle of the hoisting equipment

- 10.06.01.01.04 • Bad weather

#### 10.06.01.02 Bb

The candidate can describe the safety measures to take when working with hoisting

## Final attainment level and test criteria for VCA

### equipment

- 10.06.01.02.01 • Regularly check for damage and wear
- 10.06.01.02.02 • The operator of the hoisting equipment and assistant must be able to understand, see and hear each other well
- 10.06.01.02.03 • Use outriggers
- 10.06.01.02.04 • Good coordination when using multiple pieces of hoisting equipment

### 10.06.01.03 Ff

The candidate can state the documents that must be present with hoisting equipment

- 10.06.01.03.01 • Crane logbook (that contains all signed inspections and maintenance activities)
- 10.06.01.03.02 • Hoisting tables and graphs (that include which weight can be moved over which distance)
- 10.06.01.03.03 • Inspection certificates for winches, hoists, gin pole derricks, additional chains, hoisting yoke and other hoisting equipment

### 10.06.01.04 NL / Ff

The candidate can state the documents that demonstrate the professional knowledge of the hoisting equipment operator

- 10.06.01.04.01 • Proof of expertise (hoisting license) (obligatory for tower cranes, mobile cranes and piling rigs with a load moment equal to or greater than 10 metric tons)
- 10.06.01.04.02 • Registration log (that includes how long the operator has worked and what types of hoisting equipment he has experience with)

### 10.06.01.05 BE / Ff

The candidate can state the documents that demonstrate the professional knowledge of the hoisting equipment operator

- 10.06.01.05.01 • Possessing the tested expertise

## 10.07 Hoisting accessories

### 10.07.01 Basis / VOL VCA / VIL VCU

The candidate can describe the specific requirements that hoisting accessories must meet and the hazards and safety measures when working with hoisting accessories

#### 10.07.01.01 Bb

The candidate can describe the safety measures to take when working with chains

- 10.07.01.01.01 • A link must only be loaded in the direction of the longitudinal axis.
- 10.07.01.01.02 • Do not force chains
- 10.07.01.01.03 • Reject a chain that has stretched or that has elongated links
- 10.07.01.01.04 • Protect against sharp edges of the load
- 10.07.01.01.05 • Only use a special coupling link to extend the chain
- 10.07.01.01.06 • Completely screw in the bolts of shackles
- 10.07.01.01.07 • Never load the point of a hook

#### 10.07.01.02 Bb

The candidate can describe the safety measures to take when working with steel cables

- 10.07.01.02.01 • Store on a rack in a dry and well ventilated room
- 10.07.01.02.02 • Avoid contact with moisture and corrosive substances



## Final attainment level and test criteria for VCA

- 10.07.01.02.03 • Regularly inspect for corrosion and wear
- 10.07.01.02.04 • Protect with square timber or corner protection if the load has sharp edges
- 10.07.01.02.05 • Do not knot
- 10.07.01.02.06 • Do not use if poor splices are present
- 10.07.01.02.07 • Do not use in the event of a break or damage at one place or a broken strand
- 10.07.01.02.08 • Do not use if severe rust is present
- 10.07.01.02.09 • Do not use if there is external damage
- 10.07.01.02.10 • Do not use if there are broken or cracked cable connections
- 10.07.01.02.11 • Do not use if the diameter has been reduced

### 10.07.01.03 Ff

The candidate can give examples of hoisting equipment in assemblies

- 10.07.01.03.01 • Hoisting yoke
- 10.07.01.03.02 • Two, three or four leg bridle slings

### 10.07.01.04 Ff

The candidate can state the maximum angle between slings in an assembly

- 10.07.01.04.01 • 120 degrees

### 10.07.01.05 Ff

The candidate can give examples of situations in which a hoisting yoke is used

- 10.07.01.05.01 • To move a load with complicated dimensions exactly above the point of gravity
- 10.07.01.05.02 • If there is little room above the load
- 10.07.01.05.03 • When frequently moving similar loads
- 10.07.01.05.04 • Because the cables hang straight down, there is no chance that they will shift towards each other over the load

## 10.08 Manual hoists

### 10.08.01 Basis / VOL VCA / VIL VCU

The candidate can describe the requirements that manual hoists must meet and the hazards and safety measures when working with manual hoists

#### 10.08.01.01 Bb

The candidate can describe what a manual hoist is

- 10.08.01.01.01 • A hoisting device without a drive that is operated by hand

#### 10.08.01.02 Ff

The candidate can give examples of situations in which manual hoists are used

- 10.08.01.02.01 • To position loads in the vertical and horizontal direction during hoisting activities
- 10.08.01.02.02 • When using a crane is ineffective

#### 10.08.01.03 Ff

The candidate can describe the hazards when working with manual hoists

- 10.08.01.03.01 • A part of the hoist breaking
- 10.08.01.03.02 • The point to which the hoist is attached breaking

#### 10.08.01.04 Bb

The candidate can describe the safety measures to take when working with manual hoists

- 10.08.01.04.01 • Use sufficiently robust attachment points (never to landings, piping, etc.)
- 10.08.01.04.02 • Do not load the point of the hook

## Final attainment level and test criteria for VCA

10.08.01.04.03 • Do not overload

10.08.01.04.04 • Never extend the handle with a pipe

10.08.01.04.05 • Inspect before use, if defects are found return it for repair and report the defect to the supervisor

### 10.09 Forklift trucks

#### 10.09.01 Basis / VOL VCA / VIL VCU

The candidate can describe the requirements that forklift trucks must meet and the hazards and safety measures when working with forklift trucks

##### 10.09.01.01 Bb

The candidate can describe what a forklift truck is

10.09.01.01.01 • A vehicle used to move loads on forks or using special accessories

##### 10.09.01.02 Ff

The candidate can describe the hazards when working with forklift trucks

10.09.01.02.01 • The load can fall

10.09.01.02.02 • The load can tilt

10.09.01.02.03 • The vehicle can tilt

10.09.01.02.04 • Collision with people, goods, buildings

10.09.01.02.05 • Damage to goods and equipment due to incorrect use

10.09.01.02.06 • Inhaling diesel engine emission when a diesel-driven forklift truck is used in a confined space

##### 10.09.01.03 Bb

The candidate can describe the safety measures to take when working with forklift trucks

10.09.01.03.01 • Never increase the contra weight

10.09.01.03.02 • Load in a stable way, distribute the load over the two forks

10.09.01.03.03 • Do not lift people without a special safety cage

10.09.01.03.04 • The driver's visibility must be optimal

10.09.01.03.05 • Do not hoist without a special accessory

10.09.01.03.06 • Do not take a passenger if no special seat is available

10.09.01.03.07 • Take account of people in the vicinity

##### 10.09.01.04 Ff

The candidate can state the requirements that are placed on a forklift truck driver

10.09.01.04.01 • Possessing the tested expertise

10.09.01.04.02 • Use of the safety belt

### 10.10 Pallet trolleys

#### 10.10.01 Basis / VOL VCA / VIL VCU

The candidate can describe the requirements that pallet trolleys must meet and the hazards and safety measures when working with pallet trolleys

##### 10.10.01.01 Bb

The candidate can describe what a pallet truck is

10.10.01.01.01 • A vehicle with a lifting height of 20 cm that is suitable for manually or electrically moving pallets

##### 10.10.01.02 Ff

The candidate can describe the hazards when working with pallet trucks

## Final attainment level and test criteria for VCA

10.10.01.02.01 • Back complaints due to incorrect working posture

10.10.01.02.02 • Painful shoulder and arms due to pulling a pallet truck that is carrying too heavy loads

10.10.01.02.03 • Trapping of fingers, ankles, feet and toes

10.10.01.02.04 • The load falling

10.10.01.02.05 • Collision with people, goods, buildings

10.10.01.02.06 • Damage to goods and equipment due to incorrect use

### 10.10.01.03 Ff

The candidate can describe the precautionary measures to take when working with pallet trucks

10.10.01.03.01 • Load in a stable way, distribute the load over the two forks

10.10.01.03.02 • Travel over an even floor

10.10.01.03.03 • Ensure there is sufficient room to manoeuvre

### 10.10.01.04 Bb

The candidate can describe the precautionary measures for the operator of the pallet truck

10.10.01.04.01 • Pull the pallet truck, do not push it

10.10.01.04.02 • Good posture

## 11. Specific activities and circumstances

### 11.01 Welding and cutting

#### 11.01.01 Basis / VOL VCA / VIL VCU

The candidate can describe the hazards/risks and safety measures to take when welding and when using cutting torches

##### 11.01.01.01 Bb

The candidate can describe the hazards/ risks associated with electric welding

- 11.01.01.01.01 • Electrocutation
- 11.01.01.01.02 • Fire and explosion due to heat and spatter
- 11.01.01.01.03 • Burns to the skin due to UV radiation
- 11.01.01.01.04 • Burnt cornea due to UV radiation
- 11.01.01.01.05 • Blinding due to infrared radiation
- 11.01.01.01.06 • Heat radiation
- 11.01.01.01.07 • Poisoning due to welding smoke
- 11.01.01.01.08 • Lung complaints due to inhaling welding smoke
- 11.01.01.01.09 • Incorrect working posture
- 11.01.01.01.10 • Very bright light

##### 11.01.01.02 Bb

The candidate can describe the safety measures to take when electric welding is done

- 11.01.01.02.01 • Work permit system
- 11.01.01.02.02 • Extraction of welding smoke
- 11.01.01.02.03 • Ventilation
- 11.01.01.02.04 • Personal protection: welding mask, welding apron, welding clothing, safety shoes, air-ventilated welding mask
- 11.01.01.02.05 • Welding curtains to protect people in the vicinity from UV and infrared radiation
- 11.01.01.02.06 • Fire extinguishing equipment within reach

##### 11.01.01.03 Bb

The candidate can describe the hazards/ risks of gas welding, cutting and using a cutting torch

- 11.01.01.03.01 • Cylinder containing pressurised oxygen, promotes fire, oxidising
- 11.01.01.03.02 • Cylinder containing acetylene or propane, flammable and explosive
- 11.01.01.03.03 • Backdraft
- 11.01.01.03.04 • Fire or explosion
- 11.01.01.03.05 • Propane is heavier than air and remains hanging in wells, excavations and cellars

##### 11.01.01.04 Bb

The candidate can describe the safety measures to take when gas welding and cutting with oxygen and acetylene

- 11.01.01.04.01 • Acetylene cylinders must be stored upright or at an angle of at least 30°
- 11.01.01.04.02 • When using acetylene, take measures related to ventilation and if necessary gas measurements
- 11.01.01.04.03 • Flame extinguisher in hose between acetylene cylinder and torch
- 11.01.01.04.04 • Hose break protection

11.01.01.04.05 • Flow-back limiters on gas and oxygen hoses of the torch

## 11.02 Demolition

### 11.02.01 Basis / VOL VCA / VIL VCU

The candidate can describe the hazards and safety measures during demolition work

#### 11.02.01.01 Bb

The candidate can describe the hazards during demolition work

- 11.02.01.01.01 • Tripping and stumbling
- 11.02.01.01.02 • Protruding parts of construction
- 11.02.01.01.03 • Working at height
- 11.02.01.01.04 • Instability of demolition front
- 11.02.01.01.05 • Falling demolition material
- 11.02.01.01.06 • Collapse
- 11.02.01.01.07 • Release of hazardous substances
- 11.02.01.01.08 • Noise

#### 11.02.01.02 Bb

The candidate can describe the safety measures to take during demolition work

- 11.02.01.02.01 • Fall arrest devices
- 11.02.01.02.02 • Take account of the load-bearing capacity of the remaining structure
- 11.02.01.02.03 • Do not work above or below each other without having a specific plan
- 11.02.01.02.04 • Use chutes
- 11.02.01.02.05 • Personal protection equipment; helmet, safety shoes, overall, breathing apparatus, hearing protection
- 11.02.01.02.06 • Investigate the concentration of hazardous materials (asbestos inventory)

#### 11.02.01.03 Bb

The candidate can describe the specific safety measures to take when removing ceramic fibres by taking simple actions, with the probability that dust or fibres are released being low.

- 11.02.01.03.01 • Use a fixing agent
- 11.02.01.03.02 • Break as little as possible
- 11.02.01.03.03 • Use a P3 dust filter
- 11.02.01.03.04 • Wear a disposable overall
- 11.02.01.03.05 • Do not use a chute

## 11.03 Working at wall and floor openings

### 11.03.01 Basis / VOL VCA / VIL VCU

The candidate can describe the hazards in and safety measures when working at wall and floor openings

#### 11.03.01.01 Bb

The candidate can describe the hazards that are present when working near wall and floor openings

- 11.03.01.01.01 • Falling through a wall opening
- 11.03.01.01.02 • Falling through a floor opening
- 11.03.01.01.03 • Being struck by an object that falls through a wall or floor opening

#### 11.03.01.02 Bb

## Final attainment level and test criteria for VCA

The candidate can describe the safety measures to take when working near wall and floor openings

- 11.03.01.02.01 • Cover with strong material fixed to the surrounding surface
- 11.03.01.02.02 • Install railing or fencing
- 11.03.01.02.03 • If protection is impossible, then mark the danger and make access difficult

### 11.04 Digging and working at or in excavations

#### 11.04.01 Basis / VOL VCA / VIL VCU

The candidate can describe the importance of excavating carefully, and the hazards and rules for excavation work

##### 11.04.01.01 Bb

The candidate can describe the importance of excavating carefully and preventing damage when excavating

- 11.04.01.01.01 • Safety risks
- 11.04.01.01.02 • Environmental risk
- 11.04.01.01.03 • Economic loss
- 11.04.01.01.04 • Security of delivery of utility companies

##### 11.04.01.02 Ff

The candidate can state the dangers/risks associated with excavating

- 11.04.01.02.01 • Electrocution due to damaging live cables
- 11.04.01.02.02 • Fire and explosion due to damaging gas and oil pipes
- 11.04.01.02.03 • Being buried due to the trench caving in
- 11.04.01.02.04 • Flooding due to water flowing in
- 11.04.01.02.05 • Soil contamination due to damaging pipes carrying hazardous substances
- 11.04.01.02.06 • Suffocation due to damaging gas pipes
- 11.04.01.02.07 • Soil contamination due to hazardous products and/or biological substances

##### 11.04.01.03 Ff

The candidate can state the rules for carefully excavating

- 11.04.01.03.01 • Only excavate when the positional data are known
- 11.04.01.03.02 • Only excavate when told to do so by the person in charge or the contractor
- 11.04.01.03.03 • Excavate test trenches
- 11.04.01.03.04 • Follow up instructions of the grid operator
- 11.04.01.03.05 • Only excavate after the position of cables and pipes has been determined by test trenches within 1.5 metres of the reported position
- 11.04.01.03.06 • Report any different position or damage to the person in charge
- 11.04.01.03.07 • When using an excavator, use an excavator bucket with no teeth

#### 11.04.02 VOL VCA

The candidate can describe the legally mandated exchange of information between the grid operator and the excavator

##### 11.04.02.01 NL / Ff

The candidate can state the obligations in accordance with the Earth Movers Regulations

- 11.04.02.01.01 • Orientation by requesting the position data
- 11.04.02.01.02 • Obligation for the earth mover/ actual excavator to excavate carefully and offering the opportunity to do so

## Final attainment level and test criteria for VCA

- 11.04.02.01.03 • Reporting damage to a cable or pipe to the grid operator
- 11.04.02.01.04 • Obligatory notification of every excavation activity to KLIC (cable and pipeline information centre)/ Land registry
- 11.04.02.01.05 • Notification of different position (deviation > 1 metre) and the presence of an unknown network (orphan line) to KLIC/ Land registry
- 11.04.02.01.06 • Only (allow to) excavate when there is KLIC/ Land registry information available

### 11.04.02.02 BE / Ff

The candidate can state the statutory obligations for excavation work

- 11.04.02.02.01 • Use of the Belgian KLIP and KLIM system
- 11.04.02.02.02 • Permit issued by the grid operator

### 11.04.03 Basis / VOL VCA / VIL VCU

The candidate can describe the safety measures when working at or in excavations

#### 11.04.03.01 Bb

The candidate can describe the safety measures to take when working near or in excavations

- 11.04.03.01.01 • Effective strutting and slope provisions
- 11.04.03.01.02 • Adjust the slope to the depth of the excavation and the nature of the subsoil
- 11.04.03.01.03 • Store excavated soil at a safe distance
- 11.04.03.01.04 • Ensure that the shoring is at the edge of the excavation
- 11.04.03.01.05 • Keep vehicles, materials and equipment at a safe distance
- 11.04.03.01.06 • Fencing around excavation
- 11.04.03.01.07 • No gas cylinders in the excavation
- 11.04.03.01.08 • Provide two means of access
- 11.04.03.01.09 • Consider a deep excavation to be a confined space

## 11.05 Working at height

### 11.05.01 Basis / VOL VCA / VIL VCU

The candidate can describe when the regulations for working at height are applicable

#### 11.05.01.01 NL / Bb

The candidate can describe when the regulations for working at height are applicable

- 11.05.01.01.01 • From a height of 2.5 metres above the floor
- 11.05.01.01.02 • When working where there is a risk of falling above a dangerous location such as moving parts or water

#### 11.05.01.02 BE / Bb

The candidate can describe when the regulations for working at height are applicable

- 11.05.01.02.01 • From a height of 2 metres

### 11.05.02 Basis / VOL VCA / VIL VCU

The candidate can describe the hazards/risks and safety measures to take when working at height

#### 11.05.02.01 Bb

## Final attainment level and test criteria for VCA

The candidate can describe the hazards/risks when working at height

- 11.05.02.01.01 • Falling (for instance from the roof edge, an upper storey, etc.)
- 11.05.02.01.02 • Falling through a floor opening
- 11.05.02.01.03 • Falling objects

### 11.05.02.02 Bb

The candidate can describe the safety measures to take when working at height

- 11.05.02.02.01 • Install safe scaffolding, landing or working platform
- 11.05.02.02.02 • Install effective fencing, rails or other similar provisions: minimum rail, interim rail and toe board
- 11.05.02.02.03 • Install safety nets
- 11.05.02.02.04 • Cover floor openings
- 11.05.02.02.05 • Use personal protection equipment

### 11.05.02.03 Bb

The candidate can describe the safety measures to take when working on sloping roofs

- 11.05.02.03.01 • Use duckboards when roofing is not strong enough to allow movement over the sloping roof
- 11.05.02.03.02 • Install safety nets when there are large openings in the roof, and provide roof edge protection at the edges of a sloping roof

### 11.05.02.04 Bb

The candidate can describe the mandatory safety measures to take when working on flat roofs within four metres of the roof edge

- 11.05.02.04.01 • Install roof edge protection or safety nets
- 11.05.02.04.02 • Use a safety harness if collective protection is impossible

## 11.05.03 Basis / VOL VCA / VIL VCU

The candidate can describe how materials for working at height should be used correctly

### 11.05.03.01 Ff

The candidate can state what a ladder is used for

- 11.05.03.01.01 • For bridging a certain height
- 11.05.03.01.02 • For carrying out minor and short-lasting activities

### 11.05.03.02 Ff

The candidate can state the rules for using ladders for minor activities

- 11.05.03.02.01 • The ladder is approved and displays an inspection label
- 11.05.03.02.02 • When the use of scaffolding or a hydraulic platform is technically or economically infeasible
- 11.05.03.02.03 • Height less than 7.5 metres
- 11.05.03.02.04 • Standing time less than 4 hours
- 11.05.03.02.05 • Use of less force than 100N (10 kg)
- 11.05.03.02.06 • Reach at the maximum one arm length
- 11.05.03.02.07 • Do not use ladders above wind force 6

### 11.05.03.03 Bb

The candidate can describe the safety measures to take when working with ladders

- 11.05.03.03.01 • Position at an angle of approximately 75 degrees



## Final attainment level and test criteria for VCA

- 11.05.03.03.02 • Ensure that the bottom of the ladder cannot sink into the surface or slide
- 11.05.03.03.03 • Ensure that the top of the ladder cannot slide sideways
- 11.05.03.03.04 • The ladder must extend at least 1 metre above the location to which the ladder provides access
- 11.05.03.03.05 • Put the ladder on a solid surface, not back to front or upside down
- 11.05.03.03.06 • Keep rungs and ladder safety shoes clean, do not climb the ladder with slippery or dirty soles
- 11.05.03.03.07 • Climb while facing the ladder
- 11.05.03.03.08 • Keep the access to the ladder free of obstacles
- 11.05.03.03.09 • Block any door or passage behind the ladder
- 11.05.03.03.10 • Place metal ladders at a distance of at least two metres from live parts
- 11.05.03.03.11 • Always have three points of contact with the ladder: two feet, one hand; two hands, one foot

### 11.05.03.04 BE / Bb

The candidate can describe the safety measure to take when working with ladders that have more than 25 rungs

- 11.05.03.04.01 • Attaching the top is mandatory

### 11.05.03.05 Bb

The candidate can describe the rules for erecting and modifying scaffolding (platform)

- 11.05.03.05.01 • Authorised supervisor present during the erection activities
- 11.05.03.05.02 • Stability calculations for the scaffolding (platform) and instructions for erection or modification are available

### 11.05.03.06 BE / Ff

The candidate can state the tasks of the authorised person for the use of the scaffolding (platform)

- 11.05.03.06.01 • Ensure the application of the measures to prevent people or objects from falling
- 11.05.03.06.02 • Ensure the use of the safety measures in the event of changing weather conditions that jeopardise the safety of the scaffolding (platform)
- 11.05.03.06.03 • Ensure compliance with the conditions with respect to allowable load
- 11.05.03.06.04 • Carry out the required inspections

### 11.05.03.07 NL / Bb

The candidate can describe the safety measures to take when using scaffolding (platforms)

- 11.05.03.07.01 • Do not change anything to the construction of the scaffold (platform)
- 11.05.03.07.02 • Do not leave material or tools behind on the floor of the scaffold (platform)
- 11.05.03.07.03 • Do not work on a stairs or ladder that is placed on the scaffold (platform)
- 11.05.03.07.04 • Do not load the scaffolding more than the maximum load stated on the scaffold tag

### 11.05.03.08 BE / Bb

The candidate can describe the safety measures to take when using scaffolding (platforms)

- 11.05.03.08.01 • Do not change anything to the construction of the scaffold (platform)

## Final attainment level and test criteria for VCA

- 11.05.03.08.02 • Do not leave material or tools behind on the floor of the scaffold (platform)
- 11.05.03.08.03 • Do not work on a stairs or ladder that is placed on the scaffold (platform)
- 11.05.03.08.04 • Do not load the scaffolding more than the maximum load stated on the scaffold tag
- 11.05.03.08.05 • Only trained/instructed people are allowed to work on a scaffold (platform)

### 11.05.03.09 BE / Bb

The candidate can describe the additional safety measures to take when using scaffolding (platforms)

- 11.05.03.09.01 • Scaffolds (platforms) are classified in classes in the function of the allowable load
- 11.05.03.09.02 • Prevent slippery floor planks by using sand, salt or absorbent material

### 11.05.03.10 Bb

The candidate can describe the function of the scaffold tag

- 11.05.03.10.01 • To indicate the maximum allowable load
- 11.05.03.10.02 • To indicate whether the scaffold (platform) can be accessed
- 11.05.03.10.03 • To indicate whether the scaffold is inspected and until when this inspection is valid

### 11.05.03.11 Bb

The candidate can describe the safety measures to take when using suspended scaffolding

- 11.05.03.11.01 • The operator must not leave the scene if there are people in the suspended scaffold and the operating device is not on the suspended scaffold itself
- 11.05.03.11.02 • In the event of fault leave the scaffold (platform)
- 11.05.03.11.03 • Do not leave ready for use and unsupervised
- 11.05.03.11.04 • If there is no or limited eye contact between the operator and the people in the suspended scaffold use communication devices
- 11.05.03.11.05 • Do not exceed the maximum load
- 11.05.03.11.06 • Test before use
- 11.05.03.11.07 • Persons in the suspended scaffold must wear a safety harness that is attached to a special attachment point
- 11.05.03.11.08 • Cordon off the area under the scaffold using tape or fencing

### 11.05.03.12 Bb

The candidate can describe the safety measures to take when using rolling scaffolding

- 11.05.03.12.01 • Lock all wheels before climbing it
- 11.05.03.12.02 • Climb from inside
- 11.05.03.12.03 • Hoist up materials and tools in a safe way
- 11.05.03.12.04 • Keep the working floor tidy
- 11.05.03.12.05 • Do not stand on the stabilizers

### 11.05.03.13 Ff

The candidate can state the rules for moving the rolling scaffolding

- 11.05.03.13.01 • Do not move it if there is something or someone on the rolling scaffold
- 11.05.03.13.02 • Stabilisers without wheels must remain as low as possible to the ground when moving the scaffold, stabilisers with wheels must remain on the ground

## Final attainment level and test criteria for VCA

11.05.03.13.03 • Ensure that the stabilizers cannot shift when moving the scaffold

11.05.03.13.04 • The surface must be level and solid, otherwise install rails, etc.

### 11.05.03.14 Ff

The candidate can state the requirements that safety cages for people must meet

11.05.03.14.01 • They must be inspected and a written proof of the inspection must be present

11.05.03.14.02 • Suspended from a four-leg bridle

11.05.03.14.03 • Displays information on the outside specifying the: allowable load; dead weight; allowable number of persons

### 11.05.03.15 Bb

The candidate can describe the safety measures to take when using safety cages for people

11.05.03.15.01 • The crane driver and the people in the safety cage must be able to see each other where possible

11.05.03.15.02 • The crane driver and the people must be able to communicate with each other

11.05.03.15.03 • One person in the safety cage gives instructions to the crane driver

11.05.03.15.04 • People in the safety cage must wear safety harnesses and be attached to a attachment point in the safety cage

## 11.05.04 Basis / VOL VCA / VIL VCU

The candidate can describe the requirements that hydraulic platforms must meet and the hazards and safety measures when working with hydraulic platforms

### 11.05.04.01 Bb

The candidate can describe what a hydraulic platform is

11.05.04.01.01 • Moveable equipment intended for moving people to work at height

### 11.05.04.02 Ff

The candidate can give examples of hydraulic platforms

11.05.04.02.01 • Self-propelled hydraulic platform

11.05.04.02.02 • Hydraulic platform on a trailer, truck or van

11.05.04.02.03 • Scissor lift

### 11.05.04.03 Bb

The candidate can describe the hazards when working with hydraulic platforms

11.05.04.03.01 • Electrocution

11.05.04.03.02 • Collision

11.05.04.03.03 • Objects falling from platform

11.05.04.03.04 • Trapped between object and platform

11.05.04.03.05 • The hydraulic platform can fall over

11.05.04.03.06 • Falling out of the platform

### 11.05.04.04 Ff

The candidate can state the requirements that hydraulic platforms must meet

11.05.04.04.01 • A valid inspection certificate

11.05.04.04.02 • A visible inspection sticker

11.05.04.04.03 • A plate showing the maximum load-bearing weight

11.05.04.04.04 • User instructions

11.05.04.04.05 • Clear signs on the operating panel

### 11.05.04.05 Bb

The candidate can describe the safety measures to take when working with hydraulic platforms

- 11.05.04.05.01 • Ensure that the platform stands horizontally on a flat surface
- 11.05.04.05.02 • Driving: only with retracted stabilizers, the main arm down, the cage in the neutral position and according to the user instructions
- 11.05.04.05.03 • Do not use for hoisting activities
- 11.05.04.05.04 • Do not use as passenger lift
- 11.05.04.05.05 • Persons in the cage must use a fall arrest system attached to the cage
- 11.05.04.05.06 • If the people in the cage are higher than 25 metres above the ground, they must use walkie-talkies
- 11.05.04.05.07 • When used in a high-risk environment, assistance at ground level must be present

### 11.05.04.06 Ff

The candidate can state the requirements that are placed on operators of hydraulic platforms

- 11.05.04.06.01 • Must possess demonstrably tested expertise

## 11.06 Working in enclosed spaces

### 11.06.01 Basis / VOL VCA / VIL VCU

The candidate can name the general hazards and safety measures when working in enclosed spaces

#### 11.06.01.01 Ff

The candidate can state characteristics of a confined space

- 11.06.01.01.01 • Narrow, small, wet, slippery and little room to manoeuvre
- 11.06.01.01.02 • Not intended as accommodation for people
- 11.06.01.01.03 • Hardly any natural ventilation
- 11.06.01.01.04 • Difficult to access
- 11.06.01.01.05 • Poor escape options
- 11.06.01.01.06 • Poorly lit
- 11.06.01.01.07 • Pipes and cables at unexpected locations

#### 11.06.01.02 Ff

The candidate can state examples of confined spaces

- 11.06.01.02.01 • Storage reservoirs or tanks
- 11.06.01.02.02 • Sewers and pipes
- 11.06.01.02.03 • Lift shafts, crawling spaces and cellars
- 11.06.01.02.04 • Tents in/near excavations, contaminated soil or pipelines

#### 11.06.01.03 Bb

The candidate can describe the requirements for entering a confined space

- 11.06.01.03.01 • Minimum oxygen percentage 19%
- 11.06.01.03.02 • Any potentially explosive gas mixture present at less than 10% of the LEL
- 11.06.01.03.03 • Concentration of toxic substances or vapour must be lower than the threshold limit value
- 11.06.01.03.04 • Effective air ventilation
- 11.06.01.03.05 • Warning signs at the entrance to prevent unauthorised access

## Final attainment level and test criteria for VCA

- 11.06.01.03.06 • Pipes connected to the space must be blanked off or disconnected
- 11.06.01.03.07 • A valid work permit or a written release
- 11.06.01.03.08 • People who enter the space are at least 18 years of age
- 11.06.01.03.09 • The room is clean and dry
- 11.06.01.03.10 • With a permanent attendant

### 11.06.01.04 Ff

The candidate can state the rules related to carrying out measurements in a confined space where there is a risk of suffocation, stupefaction, poisoning, fire or explosion

- 11.06.01.04.01 • Carried out by an expert person
- 11.06.01.04.02 • At several places
- 11.06.01.04.03 • Periodically or continuously

### 11.06.01.05 Bb

The candidate can describe the safety measures related to the supervision of a confined space where there is a risk of suffocation, stupefaction, poisoning, fire or explosion

- 11.06.01.05.01 • Carrying out supervision
- 11.06.01.05.02 • Maintain communication with the person in the confined space
- 11.06.01.05.03 • Warning the emergency services if the person in the confined space is in danger
- 11.06.01.05.04 • Checking the ventilation

### 11.06.01.06 BE / Bb

The candidate can describe the safety measures related to the supervision of a confined space where there is a risk of suffocation, stupefaction, poisoning, fire or explosion

- 11.06.01.06.01 • Offer help to victims

### 11.06.01.07 Ff

The candidate can state the requirement that is placed on the person who is appointed to be the permanent attendant

- 11.06.01.07.01 • Must possess demonstrably tested expertise

### 11.06.01.08 Bb

The candidate can explain the increased risk of suffocation in a confined space

- 11.06.01.08.01 • Lack of oxygen due to the presence of inert gas

### 11.06.01.09 Bb

The candidate can explain the increased risk of fire and explosion in a confined space

- 11.06.01.09.01 • Too little ventilation, as a result of which the lower explosion limit is reached rapidly
- 11.06.01.09.02 • Presence of flammable material in the space
- 11.06.01.09.03 • Presence of flammable substances in the material or when removing layers of corrosion
- 11.06.01.09.04 • Naked flame or sparks in the confined space
- 11.06.01.09.05 • Oxygen leakage from hoses or burners that have not been closed properly

### 11.06.01.10 Bb

## Final attainment level and test criteria for VCA

The candidate can explain the increased risk of poisoning in a confined space

- 11.06.01.10.01 • Presence of toxic substances and too little ventilation, as a result of which the concentration can rise above the threshold limit value

### 11.06.01.11 Bb

The candidate can explain the increased risk of electrocution in a confined space

- 11.06.01.11.01 • Due to poor ventilation, the body temperature is higher and there is more moisture, as a result there is more conductivity

### 11.06.01.12 Bb

The candidate can describe the safety measure related to the duration of stay in a confined space

- 11.06.01.12.01 • As short as possible

### 11.06.01.13 Ff

The candidate can state which additional personal protection equipment can be worn in a confined space

- 11.06.01.13.01 • Self-contained breathing apparatus (so: not filter masks) at concentrations of hazardous gases/ vapour that exceed the threshold limit value and when the oxygen percentage is too low.

- 11.06.01.13.02 • Hearing protection (dependent on the type of activities and the nature of the confined space)

- 11.06.01.13.03 • Life line, unless it poses an additional hazard

### 11.06.01.14 Bb

The candidate can describe the safety measures related to ventilation in a confined space

- 11.06.01.14.01 • Natural ventilation

- 11.06.01.14.02 • Mechanical ventilation

- 11.06.01.14.03 • Local extraction when gases and vapours are released

### 11.06.01.15 Bb

The candidate can describe the safety measures to reduce the risk of electrocution in a confined space

- 11.06.01.15.01 • Remove electricity from the electrical equipment in the correct manner

- 11.06.01.15.02 • Use safe voltages in confined spaces that have conducting walls

## 11.06.02 Basis / VOL VCA / VIL VCU

The candidate can name the additional measures when working with risk increasing equipment and materials and during risk increasing activities in enclosed spaces

### 11.06.02.01 Ff

The candidate can state the rule related to moving parts in confined spaces

- 11.06.02.01.01 • Have them taken out of operation and locked out by an expert

### 11.06.02.02 Bb

The candidate can describe the safety measures to take when using oxygen and other gases in confined spaces

- 11.06.02.02.01 • Check the hoses for leaks in advance

- 11.06.02.02.02 • Keep gas cylinders outside of the space

- 11.06.02.02.03 • During breaks and at the end of the work, place the torches and hoses outside

## Final attainment level and test criteria for VCA

of the space

### 11.06.02.03 Bb

The candidate can describe the safety measures to take when welding and cutting in confined spaces

- 11.06.02.03.01 • Remove or cover all flammable materials
- 11.06.02.03.02 • Keep fire extinguishing equipment within reach
- 11.06.02.03.03 • Check for oxygen leaks
- 11.06.02.03.04 • Local extraction of welding fumes
- 11.06.02.03.05 • Use safe voltages when welding electrically

### 11.06.02.04 Bb

The candidate can describe the safety measures to take when applying paint products in confined spaces

- 11.06.02.04.01 • Use self-contained breathing apparatus
- 11.06.02.04.02 • Ventilation of the entire space
- 11.06.02.04.03 • All equipment must be earthed to prevent static electricity build up
- 11.06.02.04.04 • The space must be ventilated up to several days after the painting activities

## 12. Electricity and radiation

### 12.01 The dangers of electricity

#### 12.01.01 Basis / VOL VCA / VIL VCU

The candidate can name the dangers and causes of accidents when working with electricity

##### 12.01.01.01 Ff

The candidate can state the hazards related to the use of electricity

- 12.01.01.01.01 • Electrocutation
- 12.01.01.01.02 • Injury caused by sparks and arcs
- 12.01.01.01.03 • Injury caused by electric shock and the reaction to an electric shock
- 12.01.01.01.04 • Risk of fire and explosion

#### 12.01.02 VOL VCA / VIL VCU

The candidate can describe the theory of electrocutions

##### 12.01.02.01 Ff

The candidate can state factors on which an injury due to an electrical current passing through the human body depends

- 12.01.02.01.01 • The route that the electrical current takes through the body
- 12.01.02.01.02 • Current intensity
- 12.01.02.01.03 • Duration of the current passing through the body

##### 12.01.02.02 Bb

The candidate can describe the influence that an electrical current of 30 mA has on the human body

- 12.01.02.02.01 • Rise in blood pressure, difficult, irregular pulse, unconsciousness, chance of ventricle fibrillation, convulsions

##### 12.01.02.03 Bb

The candidate can describe the difference between direct current and alternating current

- 12.01.02.03.01 • Direct current is less dangerous than alternating current (in general)
- 12.01.02.03.02 • 120 V direct current and 50 V alternating current are (under dry conditions) harmless (guideline)
- 12.01.02.03.03 • In the event of short circuit, direct current causes larger arcs than alternating current

#### 12.01.03 Basis / VOL VCA / VIL VCU

The candidate can describe the effect of electrical currents on the body

##### 12.01.03.01 Ff

The candidate can state factors that influence the intensity of the current when an electrical current passes through the body

- 12.01.03.01.01 • Voltage difference
- 12.01.03.01.02 • Resistance of the surface, including footwear (linoleum and a rubber mat have a high resistance, an earth floor, a paved or concrete floor is a good conductor and therefore has a low resistance)

##### 12.01.03.02 Bb

The candidate can describe the manner in which an employee can get a secondary injury when working with electricity



## Final attainment level and test criteria for VCA

12.01.03.02.01 • In the event of electrocution, the victim can be startled and as a result get injured

12.01.03.02.02 • In the event of a short circuit, one can get hit by flying material

12.01.03.02.03 • In the event of a short circuit one can be flung aside by the pressure wave

### 12.01.04 Basis / VOL VCA / VIL VCU

(expired April 2014)

### 12.01.05 Basis / VOL VCA / VIL VCU

The candidate can name the causes of accidents that are related to working with electricity

#### 12.01.05.01 Ff

The candidate can state the causes of accidents that are related to working with electricity

12.01.05.01.01 • Defective and unsound machines, appliances and pipes/ cables

12.01.05.01.02 • Poor or missing earth connections

12.01.05.01.03 • Erroneous installation or assembly

12.01.05.01.04 • Direct or indirect contact with live parts

12.01.05.01.05 • Injudicious use of electrical installations and/ or materials

12.01.05.01.06 • Lack of attention, carelessness and ignorance

## 12.02 Safety measures when working with electricity

### 12.02.01 Basis / VOL VCA / VIL VCU

The candidate can describe the safety measures when working with electricity

#### 12.02.01.01 Ff

The candidate can state the safety measures to take when working with electricity

12.02.01.01.01 • Physical protection

12.02.01.01.02 • Double insulation

12.02.01.01.03 • Insulation

12.02.01.01.04 • Earth leakage protection

12.02.01.01.05 • Use of very low voltages

12.02.01.01.06 • Earthing

### 12.02.02 Basis / VOL VCA / VIL VCU

The candidate can describe the concept of physical protection when working with electricity

#### 12.02.02.01 Bb

The candidate can describe the concept of physical protection

12.02.02.01.01 • By installing a guard or cover, the live parts are made inaccessible

#### 12.02.02.02 Ff

The candidate can give examples of physical protection

12.02.02.02.01 • Switch box

12.02.02.02.02 • Housing of a washing machine

### 12.02.03 Basis / VOL VCA / VIL VCU

The candidate can describe the concept of isolation when working with electricity

#### 12.02.03.01 Bb

## Final attainment level and test criteria for VCA

The candidate can describe the concept of insulation

- 12.02.03.01.01 • Live parts are made inaccessible by covering them with non-conductive material that can only be removed by breaking it

### 12.02.03.02 Ff

The candidate can give examples of insulation materials

- 12.02.03.02.01 • Rubber
- 12.02.03.02.02 • Plastic
- 12.02.03.02.03 • Ceramics

## 12.02.04 Basis / VOL VCA / VIL VCU

The candidate can describe the concept of earth leakage protection

### 12.02.04.01 Bb

The candidate can describe the function and operation of an earth leakage circuit breaker

- 12.02.04.01.01 • Detects earth leaks, as soon as a current above a certain value leaks to earth, the earth leakage circuit breaker trips and turns off the power

### 12.02.04.02 Ff

The candidate can state the limitation of an earth leakage circuit breaker

- 12.02.04.02.01 • Does not offer absolute safety
- 12.02.04.02.02 • Must be regularly tested
- 12.02.04.02.03 • Does not protect against overcurrent, heating up and short circuit

## 12.02.05 Basis / VOL VCA / VIL VCU

The candidate can describe the concept of safety earthing and its application

### 12.02.05.01 Bb

The candidate can describe the concept of safety earthing

- 12.02.05.01.01 • Connection between the external metal parts of electrical appliances and earth

### 12.02.05.02 Bb

The candidate can state situations in which safety earthing appears

- 12.02.05.02.01 • In the event of a defect in an electrical appliance safety earthing prevents external metal parts becoming live

### 12.02.05.03 Ff

The candidate can state the rule related to installing safety earthing

- 12.02.05.03.01 • When earthing, wherever possible connect to the existing earth network

### 12.02.05.04 Bb

The candidate can describe when scaffolding (platforms) must be connected to an earth wire

- 12.02.05.04.01 • Scaffolding (platforms) must be earthed when there are electrical cables, wires and/or electrical equipment (including hand-held tools) on the scaffolding that carry an unsafe voltage

### 12.02.05.05 Ff

The candidate can state the safety measure that must be taken in the area of electricity for containers

- 12.02.05.05.01 • Connect in accordance with the instructions

## 12.03 Working on and in the vicinity of electrical installations

### 12.03.01 VOL VCA / VIL VCU

The candidate can explain the concepts relating to the necessary qualifications for working with electricity

#### 12.03.01.01 NL / Bb

The candidate can describe the concept of a layman

- 12.03.01.01.01 • Someone who is not an electrical expert

#### 12.03.01.02 NL / Ff

The candidate can state the powers of authority of a layman

- 12.03.01.02.01 • None

#### 12.03.01.03 NL / Bb

The candidate can describe the concept of Sufficiently Trained Person

- 12.03.01.03.01 • Someone who is sufficiently instructed by professional people, as a result of which he or she is able to prevent the hazards that can be caused by electricity

#### 12.03.01.04 NL / Ff

The candidate can state the powers of authority of a Sufficiently Trained Person

- 12.03.01.04.01 • The execution of carefully described activities for which demonstrably sufficient instruction has been given and under regular supervision: electrical activities requiring more in-depth knowledge require persons with far-reaching powers of authority, a professional person

#### 12.03.01.05 NL / Bb

The candidate can describe the concept of Professional Person

- 12.03.01.05.01 • A person who has been appointed and who has relevant (electrical) training and experience, allowing him/her to recognise and prevent hazards caused by electricity

#### 12.03.01.06 BE / Bb

The candidate can describe the concept of non-expert or layman

- 12.03.01.06.01 • BA1 : a normal person
- 12.03.01.06.02 • BA2 : children
- 12.03.01.06.03 • BA3 : people with a disability

#### 12.03.01.07 BE / Bb

The candidate can describe the concept of a warned person

- 12.03.01.07.01 • BA4 : a person who has been provided with sufficient information to avoid the hazards of electricity: e.g. operational and maintenance personnel of electrical installations

#### 12.03.01.08 BE / Bb

The candidate can describe the concept of an authorised person

- 12.03.01.08.01 • BA5 : a person with sufficient technical knowledge or experience with respect to the installation to avoid the hazards caused by electricity (e.g. engineers and technicians familiar with the installation)

#### 12.03.01.09 BE / Ff

The candidate can state the conditions that are placed on people who are allowed to enter electrical rooms or who are allowed to work on electrical systems

- 12.03.01.09.01 • BA4 or BA5 (in function of the work)

## 12.04 Temporary electrical equipment

### 12.04.01 Basis / VOL VCA / VIL VCU

The candidate can describe the hazards and safety measures when using temporary electrical equipment

## Final attainment level and test criteria for VCA

### 12.04.01.01 Ff

The candidate can describe the safety measures to take before working with electrical equipment

12.04.01.01.01 • Visually check for damage and non-conformities

12.04.01.01.02 • Report damage and do not use damaged equipment

### 12.04.01.02 Ff

The candidate can state the protection value of the earth leakage circuit breaker that must be added for extra safety in the temporary construction site junction box

12.04.01.02.01 • 30 mA earth leakage circuit breaker (for each outgoing power supply line)

### 12.04.01.03 Bb

The candidate can describe the hazards associated with using cable reels

12.04.01.03.01 • If a cable reel is not completely unwound when used, it can become very hot and cause a fire

### 12.04.01.04 Bb

The candidate can describe the safety measures to take when using cable reels

12.04.01.04.01 • Always comply with the maximum allowable power of the reel in the wound up and unwound state

12.04.01.04.02 • Unwind the cable completely from the reel

### 12.04.01.05 Bb

The candidate can describe the hazards associated with using power cables and extension cables

12.04.01.05.01 • Overloading of the cable

### 12.04.01.06 Bb

The candidate can describe the safety measure to take when using power cables and extension cables

12.04.01.06.01 • Ensure that the power or extension cable is suitable for the power consumed by the connected appliances

### 12.04.01.07 Bb

(expired April 2012)

### 12.04.01.08 Ff

The candidate can state the various protection methods for housings

12.04.01.08.01 • Double insulation (add sign) does not protect against the penetration of dust and moisture

12.04.01.08.02 • Protection against the penetration of moisture (e.g. rain)

12.04.01.08.03 • Protection against the penetration of dust

12.04.01.08.04 • Protection against impact and falling objects

## 12.05 Static electricity

### 12.05.01 Basis / VOL VCA / VIL VCU

The candidate can describe the concept of static electricity and the safety measures when working with it

#### 12.05.01.01 Bb

The candidate can describe the concept of static electricity

12.05.01.01.01 • The build up of an electrical potential other than in regular electricity systems

#### 12.05.01.02 Ff

## Final attainment level and test criteria for VCA

The candidate can state situations in which static electricity can occur

- 12.05.01.02.01 • Rising gas or vapour bubbles that cause turbulence
- 12.05.01.02.02 • When spraying paint or similar activities
- 12.05.01.02.03 • Rubbing plastic
- 12.05.01.02.04 • During the pneumatic transport of powders and granulates in mixers, feeders of weighing bunkers, tanker trucks
- 12.05.01.02.05 • Friction of clothing against the skin
- 12.05.01.02.06 • Drive belts
- 12.05.01.02.07 • For some liquids, when the liquid flows through a plastic pipe or is stirred
- 12.05.01.02.08 • Walking over plastic floor covering

### 12.05.01.03 Bb

The candidate can describe the hazards of static electricity

- 12.05.01.03.01 • Discharge of static electricity can result in a spark
- 12.05.01.03.02 • Sensitive electronic equipment can be damaged by static discharge

### 12.05.01.04 Ff

The candidate can describe measures to limit static electricity

- 12.05.01.04.01 • Earth pipelines, equipment and tanks
- 12.05.01.04.02 • Limit the height that a product falls in a storage vessel or tank
- 12.05.01.04.03 • Limit the speed of flow
- 12.05.01.04.04 • When earthing, wherever possible connect to the existing earth network
- 12.05.01.04.05 • Wear antistatic shoes and clothing

## 12.06 Ionising radiation

### 12.06.01 VOL VCA

The candidate can describe the concept of ionising radiation and its dangers

#### 12.06.01.01 Bb

The candidate can describe the concept of ionising radiation

- 12.06.01.01.01 • Radiation that is capable of creating electrically charged particles in the radiated material (for instance the cell structure in the human body) and can therefore change the structure of the material

#### 12.06.01.02 Bb

The candidate can describe the concept of a radioactive substance

- 12.06.01.02.01 • A substance that emits ionising radiation

#### 12.06.01.03 Ff

The candidate can state activities and situations in which ionising radiation is used or is created

- 12.06.01.03.01 • Extraction of natural gas, processing ore
- 12.06.01.03.02 • Medicine, nursing
- 12.06.01.03.03 • Nuclear power plants
- 12.06.01.03.04 • Detection devices
- 12.06.01.03.05 • Material inspection
- 12.06.01.03.06 • Measuring equipment in the process industry

#### 12.06.01.04 Bb

The candidate can describe the concept of natural radioactivity

- 12.06.01.04.01 • The spontaneous emission of ionising radiation by naturally occurring

## Final attainment level and test criteria for VCA

substances

### 12.06.01.05 Bb

The candidate can describe factors on which the degree of exposure to ionising radiation depends

- 12.06.01.05.01 • Distance to the radiation source
- 12.06.01.05.02 • Type of radioactive substance
- 12.06.01.05.03 • Duration of exposure to the radiation

### 12.06.02 VOL VCA / VIL VCU

The candidate can describe the safety measures for the prevention of harm to health through ionising radiation

#### 12.06.02.01 Bb

The candidate can describe the safety measures to take against ionising radiation

- 12.06.02.01.01 • Keep as far away as possible
- 12.06.02.01.02 • Avoid contamination with a radioactive substance through appropriate hygiene and by leaving packaging containing radioactive substances intact
- 12.06.02.01.03 • Cordon off the area around the source
- 12.06.02.01.04 • Wear the correct PPE
- 12.06.02.01.05 • Place warning signs
- 12.06.02.01.06 • Carry out (permanent) measurements

#### 12.06.02.02 Ff

The candidate can state the obligations for employees who work on equipment or substances that emit ionising radiation

- 12.06.02.02.01 • Measure and monitor the personal dose experienced by people
- 12.06.02.02.02 • To have a medical examination

#### 12.06.02.03 Ff

The candidate can state the tasks of the radiation expert that a company must call on

- 12.06.02.03.01 • To monitor radiation safety and hygiene
- 12.06.02.03.02 • To check whether employees, tools, equipment and/ or workplace are contaminated
- 12.06.02.03.03 • If required, to prescribe additional measures or halt the activities

## 12.07 Non-ionising radiation

### 12.07.01 VOL VCA / VIL VCU

The candidate can describe the concept of non-ionising radiation

#### 12.07.01.01 Bb

The candidate can describe the concept of non-ionising radiation

- 12.07.01.01.01 • Other, weaker radiation than ionising radiation, not capable of creating ions

#### 12.07.01.02 Ff

The candidate can give examples of non-ionising radiation

- 12.07.01.02.01 • Microwaves
- 12.07.01.02.02 • Ultraviolet radiation
- 12.07.01.02.03 • Sunlight
- 12.07.01.02.04 • Laser beams
- 12.07.01.02.05 • Infrared radiation

## Final attainment level and test criteria for VCA

12.07.01.02.06 • Radio waves

### 12.07.02 VOL VCA / VIL VCU

The candidate can describe the safety measures for the prevention of harm to health through non-ionising radiation

#### 12.07.02.01 Bb

The candidate can describe the safety measures to take to prevent non-ionising radiation damaging health

12.07.02.01.01 • Pay attention to instructions and information displayed on appliances

12.07.02.01.02 • Respect the instructions related to the duration of use

12.07.02.01.03 • Respect safety distances

## 13. The ergonomic workplace

### 13.01 Man and his working environment as a system

#### 13.01.01 VOL VCA / VIL VCU

The candidate can name the components of the system comprising man and his working environment

##### 13.01.01.01 Ff

The candidate can state the components that determine the conditions of the working environment

13.01.01.01.01 • Light

13.01.01.01.02 • Noise

13.01.01.01.03 • Climate

13.01.01.01.04 • Vibration

##### 13.01.01.02 Ff

The candidate can state the components that determine the physical load on the human being

13.01.01.02.01 • Effort

13.01.01.02.02 • Movement

13.01.01.02.03 • Working position/ posture

### 13.02 Noise and the workplace

#### 13.02.01 Basis / VOL VCA / VIL VCU

The candidate can state the hazards and consequences of exposure to excess noise

##### 13.02.01.01 Ff

The candidate can state the hazards of exposure to excess noise

13.02.01.01.01 • Loss of concentration

13.02.01.01.02 • Temporary and/or permanent hearing loss

13.02.01.01.03 • Reduced understanding of speech

##### 13.02.01.02 Ff

The candidate can state the possible consequences of exposure to excess noise

13.02.01.02.01 • Disruption of the communication required during the activities

13.02.01.02.02 • Not hearing warnings or cries for help

13.02.01.02.03 • Permanent hearing damage

13.02.01.02.04 • Nervousness

13.02.01.02.05 • Reduced concentration

13.02.01.02.06 • Tiredness

13.02.01.02.07 • Headache

13.02.01.02.08 • Accelerated breathing

13.02.01.02.09 • Gastrointestinal complaints

13.02.01.02.10 • Increased blood pressure

##### 13.02.01.03 Ff

The candidate can state symptoms that can be used to identify permanent hearing loss

13.02.01.03.01 • Having difficulty hearing high tones or soft sounds

13.02.01.03.02 • Having difficulty making phone calls



## Final attainment level and test criteria for VCA

13.02.01.03.03 • Having difficulty following a conversation in a noisy environment

13.02.01.03.04 • Hearing whistles, peeps or buzzes not coming from the surroundings

### 13.02.02 VOL VCA / VIL VCU

The candidate can describe the simple theoretical background of sound pressure

#### 13.02.02.01 Bb

The candidate can describe how the total sound (pressure) level of two sound sources can be determined

13.02.02.01.01 • Two equal sound sources together increase the sound (pressure) level by 3 dB (logarithmic effect)

13.02.02.01.02 • The result of two different sound (pressure) levels together can be determined by using a table

#### 13.02.02.02 Bb

The candidate can describe the degree to which the sound (pressure) level reduces as the distance increases

13.02.02.02.01 • Doubling the distance gives a reduction of approximately 6 dB(A)

### 13.02.03 Basis / VOL VCA / VIL VCU

The candidate can name practical resources for estimating sound (pressure) levels

#### 13.02.03.01 Ff

The candidate can state the measurement unit used to express a sound (pressure) level

13.02.03.01.01 • dB(A) or decibel(A)

#### 13.02.03.02 Ff

The candidate can give a rule of thumb for estimating when sound is harmful

13.02.03.02.01 • When you have to raise your voice to make yourself heard at a normal distance at which you hold a conversation

### 13.02.04 VOL VCA / VIL VCU

The candidate can describe measures for controlling excess noise and the priorities placed on them

#### 13.02.04.01 Bb

The candidate can describe measures to take to control excess noise and the priorities placed on them

13.02.04.01.01 • 1. Reduce the sound (pressure) level of the sound source

13.02.04.01.02 • 2. Screen off the sound source

13.02.04.01.03 • 3. Damp noise vibrations in the vicinity

13.02.04.01.04 • 4. Use personal hearing protection

#### 13.02.04.02 NL / Ff

The candidate can state the sound (pressure) level at which an employer must take measures

13.02.04.02.01 • From 80 dB(A), providing the option to have a hearing examination, making hearing protection available

13.02.04.02.02 • From 85 dB(A): a management plan including the measures to take, wearing hearing protection, employing warning signs

## Final attainment level and test criteria for VCA

### 13.02.04.03 BE / Ff

The candidate can state the sound (pressure) level at which an employer must take measures

13.02.04.03.01 • From 80 dB(A): providing the option to take a hearing test, making hearing protection available

13.02.04.03.02 • From 85 dB(A): management plan including the measures to take, wearing hearing protection, warning with signs, periodic health examination by the company doctor

## 13.03 Vibrations and the workplace

### 13.03.01 Basis / VOL VCA / VIL VCU

The candidate can describe the types of vibrations that have an effect on the body

#### 13.03.01.01 Bb

The candidate can describe two types of physical vibrations

13.03.01.01.01 • Vibrations of the hand/ arm: can arise when using mechanical (hand-held) tools

13.03.01.01.02 • Vibration of the body: can be transferred via a vehicle, large installation or moving floor

### 13.03.02 Basis / VOL VCA / VIL VCU

The candidate can state the hazards and consequences of exposure to excess vibration

#### 13.03.02.01 Ff

The candidate can state health complaints that can be the result of vibrations of the hand and arm

13.03.02.01.01 • Pain in hands and arms

13.03.02.01.02 • Damage to blood vessels and joints in the fingers and the hand

13.03.02.01.03 • Numb finger tips

13.03.02.01.04 • "White fingers"

#### 13.03.02.02 Ff

The candidate can state health complaints that can be the result of vibrations of the body

13.03.02.02.01 • Stomach complaints

13.03.02.02.02 • Back complaints

13.03.02.02.03 • Tiredness

13.03.02.02.04 • Headache

13.03.02.02.05 • Muscle ache

13.03.02.02.06 • Reduced concentration

13.03.02.02.07 • Disorders of the balance organ

### 13.03.03 VOL VCA / VIL VCU

The candidate can state safety measures against the health dangers of vibrations

#### 13.03.03.01 Ff

The candidate can state safety measures to take against the hazard to health posed by vibrations

13.03.03.01.01 • Pay attention to health hazards when purchasing machines

## Final attainment level and test criteria for VCA

13.03.03.01.02 • Fit damping/ insulation, for instance fit hand-held tools with a damped handle or use vibration-damping gloves

13.03.03.01.03 • Use alternative techniques

13.03.03.01.04 • Limit the duration of exposure

### 13.04 Climatological conditions and the workplace

#### 13.04.01 VOL VCA / VIL VCU

The candidate can state the influencing factors in and control measures for a pleasant working climate

##### 13.04.01.01 Ff

The candidate can state factors on which working comfort depends

13.04.01.01.01 • Climatic conditions

13.04.01.01.02 • Effort

13.04.01.01.03 • Clothing

##### 13.04.01.02 Ff

The candidate can state factors that influence the climatic conditions in the workplace

13.04.01.02.01 • Ambient temperature

13.04.01.02.02 • Radiated heat

13.04.01.02.03 • Air humidity

13.04.01.02.04 • Annoying air flows

##### 13.04.01.03 Ff

The candidate can state control measures to take to ensure working comfort

13.04.01.03.01 • Keep the temperature as comfortable and even as reasonably possible and adjusted to the physical efforts

13.04.01.03.02 • No annoying air flows

13.04.01.03.03 • Limit exposure

13.04.01.03.04 • If necessary, provide specific PPE

13.04.01.03.05 • Maintain the moisture balance

### 13.05 Lighting and the workplace

#### 13.05.01 VOL VCA / VIL VCU

The candidate can state the points to pay attention to in determining the correct workplace lighting

##### 13.05.01.01 Ff

The candidate can state the points to pay attention to in determining the correct workplace lighting

13.05.01.01.01 • Adequate lighting to distinguish details

13.05.01.01.02 • Older employees need more light

13.05.01.01.03 • Contrasts in a working room must not be too great

13.05.01.01.04 • Light reflection must be prevented

13.05.01.01.05 • The light intensity of the lamps can reduce the longer they are used or due to age

13.05.01.01.06 • Dependent on the activities, the light intensity must meet the current regulations

##### 13.05.02 Basis

The candidate can state the points to pay attention to in determining the correct workplace lighting

13.05.02.01 Ff

The candidate can state the points to pay attention to in determining the correct workplace lighting

13.05.02.01.01 • Adequate lighting to distinguish details

## 13.06 Physical and mental stresses during work

13.06.01 VOL VCA / VIL VCU

The candidate can describe what physical and mental stresses during work involve

13.06.01.01 Ff

The candidate can state factors that influence physical stress

13.06.01.01.01 • Severity of the work

13.06.01.01.02 • The movements that must be made

13.06.01.01.03 • Working position/ posture

13.06.01.02 Ff

The candidate can state working conditions that pose a risk that physical complaints will arise

13.06.01.02.01 • Duration of the effort

13.06.01.02.02 • Long-term sitting or standing

13.06.01.02.03 • Incorrect working position/ posture

13.06.01.02.04 • Exposure to vibrations

13.06.01.02.05 • Carrying out many repetitive actions

13.06.01.02.06 • Excess effort such as heavy lifting

13.06.01.03 Bb

The candidate can describe a function of a break during the work

13.06.01.03.01 • To prevent overloading

13.06.01.04 Bb

The candidate can describe the concept of static stress

13.06.01.04.01 • Stress caused by persistently tensioning the muscles

13.06.01.05 Ff

The candidate can state the health hazards of static stress

13.06.01.05.01 • Reduced blood flow resulting in numbness

13.06.01.05.02 • Muscle ache and/or cramp

13.06.01.05.03 • Chronic tiredness

13.06.01.06 Bb

The candidate can describe the concept of dynamic stress

13.06.01.06.01 • Stress caused by movement of muscles, alternatively tensioning and relaxing them

13.06.01.07 Ff

The candidate can state health complaints that can result from excess dynamic stresses

13.06.01.07.01 • Tiredness

13.06.01.07.02 • Muscle ache

## Final attainment level and test criteria for VCA

13.06.01.07.03 • Injury

### 13.06.01.08 Ff

The candidate can state factors that influence mental stress

- 13.06.01.08.01 • Workload
- 13.06.01.08.02 • Task versus capacity
- 13.06.01.08.03 • Relationship with colleagues
- 13.06.01.08.04 • Hierarchical relationship
- 13.06.01.08.05 • Physical working conditions
- 13.06.01.08.06 • Working hours scheme
- 13.06.01.08.07 • Job (in)security
- 13.06.01.08.08 • Infrastructure, equipment

### 13.06.02 VOL VCA / VIL VCU

The candidate can name the factors that determine how much risk is involved in manual lifting and the safety measures that the employer must take for manual lifting

#### 13.06.02.01 Ff

The candidate can state the factor that determines the individual loadability of manual lifting

- 13.06.02.01.01 • The degree to which one is physically capable of lifting

#### 13.06.02.02 Ff

The candidate can state factors that determine the risk level of manual lifting

- 13.06.02.02.01 • The horizontal distance between the body and the load
- 13.06.02.02.02 • The vertical distance between the load and the floor
- 13.06.02.02.03 • The vertical distance to move the load
- 13.06.02.02.04 • Frequency
- 13.06.02.02.05 • The degree to which the upper body is in a rotated position with respect to the lower body
- 13.06.02.02.06 • The contact area of the hands on the load
- 13.06.02.02.07 • The weight of the load
- 13.06.02.02.08 • The dimensions of the load in relation to its centre of gravity

#### 13.06.02.03 Ff

The candidate can give organisational rules for safe manual lifting and moving

- 13.06.02.03.01 • Allow employees to determine the pace
- 13.06.02.03.02 • Plan short breaks
- 13.06.02.03.03 • Distribute lifting activities among several people

#### 13.06.02.04 Ff

The candidate can state the measure that applies to pregnant women with respect to manual lifting

- 13.06.02.04.01 • In the last three months of their pregnancy, pregnant women must not lift any loads

#### 13.06.02.05 Bb

The candidate can describe the safety measures an employer must take to reduce the hazards of manual lifting

- 13.06.02.05.01 • If the work can not be done safely in any conceivable manner, the employer

## Final attainment level and test criteria for VCA

must arrange that a different working method is used

13.06.02.05.02 • If the rules for safe lifting and moving do not sufficiently reduce the hazard, the employer must provide suitable aids and arrange for their use

13.06.02.05.03 • Providing training sessions and instructions for safe lifting and moving

13.06.02.05.04 • Monitoring health if there is a risk of back injury

### 13.06.03 Basis / VOL VCA / VIL VCU

The candidate can state the dangers of and safety measures for manual lifting

#### 13.06.03.01 Bb

The candidate can describe the correct working position/ posture during manual lifting and moving

13.06.03.01.01 • Lift with a straight back and bend knees

13.06.03.01.02 • Keep the load as close as possible to the body

#### 13.06.03.02 Bb

The candidate can describe the hazards during manual lifting and moving

13.06.03.02.01 • Back injuries due to incorrect lifting

13.06.03.02.02 • The load falling due to a lack of grip

13.06.03.02.03 • Fingers being trapped when putting the load down

#### 13.06.03.03 Bb

The candidate can describe the safety measures to take during manual lifting and moving

13.06.03.03.01 • The maximum weight to be lifted 25 Kg (advice)

13.06.03.03.02 • Prevent lifting when seated

13.06.03.03.03 • Do not lift too high

13.06.03.03.04 • Do not move the load too far

13.06.03.03.05 • Take care on slippery, uneven floors, gaps and stairs

13.06.03.03.06 • Determine the pace yourself and take short breaks

13.06.03.03.07 • Lift calmly

#### 13.06.03.04 Bb

The candidate can describe the safety measures that people who lift loads must take

13.06.03.04.01 • Wear safety clothing and PPE

13.06.03.04.02 • Change position/ posture regularly

### 13.06.04 VOL VCA / VIL VCU

The candidate can state the points to pay attention to for sitting and standing work

#### 13.06.04.01 Ff

The candidate can give guidelines for correct sitting during the work

13.06.04.01.01 • Regularly change position: walking, standing, sitting, various sitting positions

13.06.04.01.02 • Ensure an optimal sitting position

#### 13.06.04.02 Bb

The candidate can describe the optimum sitting position to be taken during the work

13.06.04.02.01 • Good support of the upper legs on the seat of the chair

13.06.04.02.02 • Good position of the back

13.06.04.02.03 • Relief of the shoulders, for instance arm supports

## Final attainment level and test criteria for VCA

### 13.06.04.03 Ff

The candidate can state the working conditions in which work when standing is preferred to seated work

- 13.06.04.03.01 • If there is insufficient leg room
- 13.06.04.03.02 • If forces exceeding 45 N (4.5 kg) must be used
- 13.06.04.03.03 • When frequently reaching down, up or far away from the body
- 13.06.04.03.04 • If one has to stand up frequently
- 13.06.04.03.05 • If downward force must be exerted

### 13.06.04.04 Ff

The candidate can state an aid for standing work

- 13.06.04.04.01 • Standing support: this relieves the legs and feet as the weight of the body is supported

## 14. Personal Protection Equipment (PPE)

### 14.01 Application, responsibilities and obligations when using PPE

#### 14.01.01 Basis / VOL VCA / VIL VCU

The candidate can describe what PPE is and when it must be used

##### 14.01.01.01 Ff

The candidate can state when PPE must be used

14.01.01.01.01 • If hazards cannot be removed at the source

14.01.01.01.02 • If hazards cannot be isolated or screened off

14.01.01.01.03 • If hazards cannot be removed by collective measures

##### 14.01.01.02 Bb

The candidate can describe what PPE is

14.01.01.02.01 • Any piece of equipment that is intended to be worn or held by the employee to protect him from one or more hazards that can jeopardise his health or safety at work

14.01.01.02.02 • Supplementary equipment and accessories that must be used with the PPE

##### 14.01.01.03 Bb

The candidate can describe the function of PPE

14.01.01.03.01 • It must protect the wearer against the hazards that can threaten his health or safety

#### 14.01.02 Basis / VOL VCA / VIL VCU

The candidate can state the obligations of those providing PPE and those using it

##### 14.01.02.01 Ff

The candidate can state the obligations of manufacturers in the area of the requirements that PPE must meet

14.01.02.01.01 • Actually offer the promised protection

14.01.02.01.02 • Must be reliable

14.01.02.01.03 • Must be tested

14.01.02.01.04 • Must have a CE mark

##### 14.01.02.02 Ff

The candidate can state the party responsible for making PPE available

14.01.02.02.01 • Employer or hiring company

##### 14.01.02.03 Ff

The candidate can state the obligations the employee has with respect to PPE

14.01.02.03.01 • Check regularly

14.01.02.03.02 • Clean in accordance with the instructions

14.01.02.03.03 • Use correctly

14.01.02.03.04 • Store carefully

14.01.02.03.05 • Manage properly

### 14.02 Eye and face protection

#### 14.02.01 Basis / VOL VCA / VIL VCU

The candidate can describe the dangers for the eyes and face and the applications and safe use of the various forms of PPE

##### 14.02.01.01 Ff

The candidate can describe the hazards faced by the eyes and face during the work



## Final attainment level and test criteria for VCA

- 14.02.01.01.01 • Flying hard, sharp particles/ components
- 14.02.01.01.02 • Flying hot particles when grinding, welding, cutting
- 14.02.01.01.03 • Flying dust particles when hacking, drilling
- 14.02.01.01.04 • Flying splashes of liquid: corrosive, irritating, harmful
- 14.02.01.01.05 • Heat, light, radiation: ultraviolet (UV) and infrared (IR)

### 14.02.01.02 Ff

The candidate can state the various forms of eye and face protection

- 14.02.01.02.01 • Safety glasses
- 14.02.01.02.02 • Safety goggles
- 14.02.01.02.03 • Face mask
- 14.02.01.02.04 • Welding goggles, welding masks, welding caps, welding helmets

### 14.02.01.03 Bb

The candidate can describe the main properties of various eye and face protection devices

- 14.02.01.03.01 • Safety glasses: lenses of safety glass made of plastic, usually with side flaps
- 14.02.01.03.02 • Safety goggles: connects to the face, open or fully dust-tight ventilation openings in the upright edge
- 14.02.01.03.03 • Face mask: mask over the entire face, made of plastic or metal gauze (no protection against dust, gases, vapours, dust particles that come from below)
- 14.02.01.03.04 • Welding goggles: clear window from safety glass or plastic and dark window (usually flip up)
- 14.02.01.03.05 • Welding masks, welding screens: cover the entire face, with a dark window (sometimes in combination with a clear window)

### 14.02.01.04 Bb

The candidate can describe when the various eye and face protection devices are used

- 14.02.01.04.01 • Safety glasses: to protect against flying hard, sharp particles
- 14.02.01.04.02 • Safety goggles: in dusty surroundings, when hacking and drilling and to protect against splashes of hazardous liquids
- 14.02.01.04.03 • Face mask: protection against flying dust, hazardous liquids and flying hot parts in the event of short circuit, when working with high-pressure cleaners (no protection against substances, gases, vapour, dust particles that come from below)
- 14.02.01.04.04 • Welding goggles: when welding using gas and against flying particles when chipping off slag and grinding
- 14.02.01.04.05 • Welding mask, welding screen or welding helmet: when welding using electricity and to protect against ultraviolet and infrared radiation, heat and flying metal particles and sparks

## 14.03 Ear protection

### 14.03.01 Basis / VOL VCA / VIL VCU

The candidate can describe the dangers to hearing and the application and safe use of the various forms of PPE

#### 14.03.01.01 Ff

The candidate can describe the hazards to hearing during work

- 14.03.01.01.01 • Noise-related deafness

## Final attainment level and test criteria for VCA

14.03.01.01.02 • Other sounds are masked

14.03.01.01.03 • Difficulty to understand

### 14.03.01.02 Ff

The candidate can state the various types of hearing protection

14.03.01.02.01 • Plugs

14.03.01.02.02 • Foam ear plugs

14.03.01.02.03 • Plastic ear plugs

14.03.01.02.04 • Earplugs

14.03.01.02.05 • Otoplastics

14.03.01.02.06 • Ear muffs

### 14.03.01.03 Bb

The candidate can describe the main properties and applications of various hearing protection devices

14.03.01.03.01 • Plugs or foam ear plugs: plasticised and give maximum protection of approximately 10 dB(A)

14.03.01.03.02 • Plastic ear plugs: specially designed plastic rods or deformable foam rods that are worn in the ear, the maximum protection is approximately 10 to 15 dB(A)

14.03.01.03.03 • Universal earplugs: specially formed, fixed to a band that is worn around the neck, dependent on the pitch they give protection between 10 and 15 dB(A)

14.03.01.03.04 • Otoplastics: made using a cast of the ear, contains an exchangeable or adjustable filter that stops noise, maximum protection approximately 25 dB(A)

14.03.01.03.05 • Hearing protectors: look like large headphones, they shut off the ears from the surroundings, the protection factor depends on the type of protector and the pitch of the noise, maximum protection approximately 25 dB(A)

### 14.03.01.04 Ff

The candidate can state when an employer must make hearing protection available and when the hearing protection must be worn

14.03.01.04.01 • Hearing protection must be made available from a noise level of 80 dB(A)

14.03.01.04.02 • Hearing protection must be worn from a noise level of 85 dB(A)

## 14.04 Respiratory protection

### 14.04.01 Basis / VOL VCA / VIL VCU

The candidate can describe the dangers to breathing and the application and safe use of the various forms of PPE

#### 14.04.01.01 Ff

The candidate can describe the hazards to breathing during the work

14.04.01.01.01 • Too low oxygen concentration

14.04.01.01.02 • Too high concentration of vapours, gases or dust particles

14.04.01.01.03 • Annoyance due to vapour, gas, dust

#### 14.04.01.02 Ff

The candidate can state the various types of breathing protection

14.04.01.02.01 • Filter masks with a particle filter

14.04.01.02.02 • Filter masks with a gas/vapour filter

14.04.01.02.03 • Self-contained breathing apparatus with air from cylinders or via an air line

14.04.01.02.04 • Self-contained breathing apparatus that draws in fresh air

## Final attainment level and test criteria for VCA

### 14.04.01.03 Ff

The candidate can describe the main properties of various breathing protection devices

14.04.01.03.01 • Filter masks clean the air that is breathed in

14.04.01.03.02 • Self-contained breathing apparatus: the clean air coming from an external source is forced into the mask for instance via cylinders, an air line or an air unit

### 14.04.01.04 Bb

The candidate can describe the main properties of filter masks

14.04.01.04.01 • Do not use when oxygen concentrations are too low

14.04.01.04.02 • Filters can only be used for a limited time dependent on the type of filter, the concentration of products in the air and the amount of air that is breathed in

14.04.01.04.03 • Particle filters are divided into the following classes: P1 irritating substance, P2 harmful substance, P3 toxic substance

14.04.01.04.04 • Gas vapour filters are classified according to absorption capacity and to the type of vapour/ gas that is trapped by the filter

14.04.01.04.05 • Particle filters do not trap gases or vapours

14.04.01.04.06 • Particle filters get clogged when used for a long time

14.04.01.04.07 • Gas vapour filters become saturated and allow gas and vapour through

### 14.04.01.05 Bb

The candidate can describe when breathing protection devices with filters are used

14.04.01.05.01 • When the concentration of the contamination is greater than the threshold limit value (when working or escaping in an emergency)

### 14.04.01.06 Bb

The candidate can describe when self-contained breathing protection must be used

14.04.01.06.01 • If there is less than 19% oxygen in the air

14.04.01.06.02 • If there are high and unknown concentrations of hazardous substances in the air

### 14.04.01.07 Bb

The candidate can describe when self-contained breathing protection must be used in a confined space

14.04.01.07.01 • When working with concentrations of substances above the threshold limit value

### 14.04.01.08 Bb

The candidate can describe when various breathing protection devices with filters are used

14.04.01.08.01 • Nose and mouth cover: only against particles, not for gases or vapours

14.04.01.08.02 • Semi and full face masks with insert: only against particles, not for gases or vapours

14.04.01.08.03 • Semi and full face masks (usually made of rubber) with screw thread: against particles and gases or vapours

14.04.01.08.04 • Full face masks: cover the entire face

### 14.04.01.09 Bb

The candidate can describe the operation of an air hood (self-contained breathing apparatus)

## Final attainment level and test criteria for VCA

- 14.04.01.09.01 • Worn over the head with shoulder supports
- 14.04.01.09.02 • Air is extracted from the bottom of the cover at the front
- 14.04.01.09.03 • Air is supplied into the air hood without obstruction
- 14.04.01.09.04 • The air is supplied by a compressor via breathing air lines, via breathing air lines or via air lines connected to a fan

### 14.04.01.10 Bb

The candidate can describe how full face masks with air cylinders work as self-contained breathing protection

- 14.04.01.10.01 • The air is drawn in via a lung demand valve from the cylinders into the breathing space

### 14.04.01.11 Bb

The candidate can state the requirements a user of self-contained breathing protection devices must meet.

- 14.04.01.11.01 • Instruction and drills for use
- 14.04.01.11.02 • Air for fresh air hoods, air lines and air cylinders filtered under pressure and of a good quality
- 14.04.01.11.03 • Correctly maintain and clean regularly
- 14.04.01.11.04 • Check whether the filter is suitable for the gas/ vapour or particles to be filtered
- 14.04.01.11.05 • Check whether the mask fits well (fit test)
- 14.04.01.11.06 • No facial hair (can cause leaks and prevent correct operation)

### 14.04.01.12 BE / Ff

The candidate can state the requirement a user of breathing protection devices must meet

- 14.04.01.12.01 • Training, good physical condition and an obligatory exam from a recognised centre.

## 14.05 Head protection

### 14.05.01 Basis / VOL VCA / VIL VCU

The candidate can describe the dangers to the head and the application and safe use of the various forms of PPE

#### 14.05.01.01 Ff

The candidate can describe the hazards to the head during work

- 14.05.01.01.01 • Falling objects
- 14.05.01.01.02 • Impact

#### 14.05.01.02 Ff

The candidate can state the type of head protection

- 14.05.01.02.01 • Safety helmet

#### 14.05.01.03 Bb

The candidate can describe the main properties of a safety helmet

- 14.05.01.03.01 • Interior: absorbs a shock and distributes it over the head
- 14.05.01.03.02 • Exterior: sufficiently robust to stop falling objects/ impacts to reach the head

#### 14.05.01.04 Bb

The candidate can describe how safety helmets are used

- 14.05.01.04.01 • Correctly adjust the interior of the helmet
- 14.05.01.04.02 • Replace after a certain period

## Final attainment level and test criteria for VCA

14.05.01.04.03 • Replace after a fall, an impact or being hit by a falling object

14.05.01.04.04 • The use of metal helmets is prohibited in industrial situations: they conduct electricity

### 14.06 Hand and arm protection

#### 14.06.01 Basis / VOL VCA / VIL VCU

The candidate can describe the dangers to the arms and legs and the application and safe use of the various forms of PPE

##### 14.06.01.01 Ff

The candidate can describe the hazards to hands and arms during work

14.06.01.01.01 • Sharp objects

14.06.01.01.02 • Heat

14.06.01.01.03 • Cold

14.06.01.01.04 • Radiation

14.06.01.01.05 • Hazardous substances

##### 14.06.01.02 Ff

The candidate can state the various forms of hand and arm protection

14.06.01.02.01 • Gloves in various materials

14.06.01.02.02 • Gloves with extended wrist and/or arm protection in various materials

##### 14.06.01.03 Bb

The candidate can describe when the various hand and arm protection equipment is used

14.06.01.03.01 • Cut-proof gloves when cutting

14.06.01.03.02 • Insulating gloves when exposed to heat or cold

14.06.01.03.03 • Plastic or rubber gloves when working with hazardous substances

##### 14.06.01.04 Ff

The candidate can describe when leather or fabric gloves are not allowed to be worn during work

14.06.01.04.01 • Leather or fabric gloves must not be worn when using hazardous substances

##### 14.06.01.05 Ff

The candidate can describe when gloves are not allowed to be worn during work

14.06.01.05.01 • No gloves may be worn near to moving parts in order to prevent being caught

### 14.07 Foot and leg protection

#### 14.07.01 Basis / VOL VCA / VIL VCU

The candidate can describe the dangers for the feet and legs and the application and safe use of the various forms of PPE

##### 14.07.01.01 Ff

The candidate can describe the hazards to the feet and legs during the work

14.07.01.01.01 • Falling objects

14.07.01.01.02 • Step onto sharp objects

14.07.01.01.03 • Hazardous substances

14.07.01.01.04 • Slipping

14.07.01.01.05 • Build-up of static electricity

##### 14.07.01.02 Ff

The candidate can state the various forms of foot and leg protection

## Final attainment level and test criteria for VCA

14.07.01.02.01 • Safety shoes

14.07.01.02.02 • Safety boots

### 14.07.01.03 Ff

The candidate is able to describe the main properties of several foot and leg protection devices

14.07.01.03.01 • Reinforced nose to protect the toes against heavy falling objects

14.07.01.03.02 • Reinforced sole to protect the feet against sharp objects that are stepped on

14.07.01.03.03 • Anti-slip sole

### 14.07.01.04 Bb

The candidate can describe when foot and leg protection is used

14.07.01.04.01 • In the building sector, safety shoes with a steel nose and steel mid sole are mandatory

14.07.01.04.02 • Safety boots are obligatory where water or hazardous substances can occur

14.07.01.04.03 • Antistatic shoes in areas with an explosion risk

### 14.07.01.05 Ff

The candidate can state the rules for using safety shoes

14.07.01.05.01 • Regularly maintain and grease

14.07.01.05.02 • Do not dry wet shoes near a central heating radiator

14.07.01.05.03 • Replace when worn or after they have been in contact with hazardous substances

## 14.08 Body protection

### 14.08.01 Basis / VOL VCA / VIL VCU

The candidate can describe the dangers to the body and the application and safe use of the various forms of PPE

#### 14.08.01.01 Ff

The candidate can describe the hazards to the body during work

14.08.01.01.01 • Contamination

14.08.01.01.02 • Hazardous substances

14.08.01.01.03 • Heat

14.08.01.01.04 • Cold

14.08.01.01.05 • Rain

14.08.01.01.06 • Poor visibility

#### 14.08.01.02 Ff

The candidate can state the various types of body protection

14.08.01.02.01 • Overall

14.08.01.02.02 • Protective clothing

14.08.01.02.03 • Disposable clothing

14.08.01.02.04 • All-weather clothing

14.08.01.02.05 • Insulating underwear

14.08.01.02.06 • Rainproof clothing

14.08.01.02.07 • Warning clothing

#### 14.08.01.03 Bb

The candidate can describe when the various types of body protection are used

14.08.01.03.01 • Overall: against contamination, when welding and grinding

## Final attainment level and test criteria for VCA

- 14.08.01.03.02 • Protective clothing: when using hazardous substances, heat, cold, radiation
- 14.08.01.03.03 • Warning clothing: use to make the wearer visible
- 14.08.01.03.04 • All-weather clothing and insulating underwear: at low temperatures
- 14.08.01.03.05 • Anti-static clothing: in environments with explosion risk

### 14.08.01.04 Ff

The candidate can state the rules for using body protection

- 14.08.01.04.01 • Do not blow clean using compressed air
- 14.08.01.04.02 • Immediately clean or exchange dirty clothing
- 14.08.01.04.03 • Wear done up near moving and rotating parts
- 14.08.01.04.04 • Have damaged clothing repaired or replaced immediately
- 14.08.01.04.05 • Throw away disposable clothing after wearing it once

## 14.09 Fall protection

### 14.09.01 Basis / VOL VCA / VIL VCU

The candidate can describe the application and safe usage of the various forms of fall protection PPE

#### 14.09.01.01 Ff

(expired April 2014)

#### 14.09.01.02 Ff

The candidate can state the various types of fall protection

- 14.09.01.02.01 • Systems that prevent falling: safety harness, a safety line and an anchor point
- 14.09.01.02.02 • Systems that arrest the fall: safety harness, fall damper, life line and anchor point

#### 14.09.01.03 Bb

The candidate can describe when various types of fall protection are used

- 14.09.01.03.01 • Use the positioning system in such a way that falling is impossible as there is always sufficient distance to the edge of the working area (drop)
- 14.09.01.03.02 • Use the fall arrest system in such a way that the fall height is limited as far as possible and that the shock when falling is damped as much as possible
- 14.09.01.03.03 • Personal fall protection devices: use when the other protection devices such as railings, edge protection or safety net cannot be used

#### 14.09.01.04 Ff

The candidate can state the rules for using the various forms of fall protection

- 14.09.01.04.01 • Have fall protection devices that have arrested a fall inspected
- 14.09.01.04.02 • Fall protection systems and safety harnesses must be inspected at least once a year
- 14.09.01.04.03 • Life lines must not be dirty
- 14.09.01.04.04 • Shock absorbers and safety harnesses must be stored in a dry and clean location
- 14.09.01.04.05 • Safety harnesses must fit well and be adjusted to the wearer
- 14.09.01.04.06 • The user must check the harness for among other things wear and frayed ends

#### 14.09.01.05 BE / Ff

The candidate can state the inspection requirements that apply to fall protection systems and safety harnesses

- 14.09.01.05.01 • At least once a year by a certified company

## Final attainment level and test criteria for VCA

### 14.09.01.06 Bb

The candidate can describe the hazards and the safety measures to be taken after a fall when wearing a safety harness

14.09.01.06.01 • Restriction of the blood circulation to the lower body with as a result unconsciousness and possibly death within 10-20 minutes

14.09.01.06.02 • Always try to keep moving the legs and try to pull yourself up on the life line to reduce the pressure on the legs

14.09.01.06.03 • Work with at least 2 people to be able to call for help