

# **Economic and Social Council**

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# **Economic Commission for Europe**

Inland Transport Committee

# Working Party on the Transport of Dangerous Goods

Joint Meeting of Experts on the Regulations annexed to the European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways (ADN) (ADN Safety Committee)

Thirty-fifth session Geneva, 26–30 August 2019 Item 3 (d) of the provisional agenda Implementation of the European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways (ADN): Training of experts

# **Report of the 20th meeting of the informal working group on the training of experts**

# Transmitted by the Central Commission for the Navigation of the Rhine (CCNR)\*, \*\*

1. The informal working group on the training of experts held its 20th meeting, chaired by Mr. Bölker (Germany), in Strasbourg from 2 to 4 April 2019. Representatives of the following States took part in the meeting: Austria; Belgium; Germany; the Netherlands; and Switzerland. The following non-governmental organizations and training bodies were represented: the European Barge Union (EBU); European Skippers Organisation (ESO); and Atlas Schiffahrt (Germany).

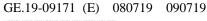
# I. Adoption of the agenda

CCNR-ZKR/ADN/WG/CQ/2019/11 a (agenda) ECE/TRANS/WP.15/AC.2/2019/8 (report of the 19th meeting)

2. The informal working group adopted the agenda with the deletion of item 3.3.

3. The Chair reported on the last meeting of the ADN Safety Committee. In particular, he reported that the ADN Safety Committee thanked the working group for the alignment of

<sup>\*\*</sup> In accordance with the programme of work of the Inland Transport Committee for 2018–2019 (ECE/TRANS/2018/21/Add.1 (9.3)).







<sup>\*</sup> Distributed in German by the Central Commission for the Navigation of the Rhine under the symbol CCNR/ZKR/ADN/WP.15/AC.2/2019/25.

the catalogue of questions with ADN 2019. The tasks formulated by the ADN Safety Committee for the working group would be addressed under the respective agenda items.

## **II.** Programme of work

ECE/TRANS/WP.15/AC.2/2019/12 (programme of work)

4. The Chair indicated that the programme of work was used to improve the organization of the work of the informal working group and that he was therefore of the opinion that one should be drawn up. The draft programme of work was then to be submitted to the ADN Safety Committee for approval. All members of the working group agreed on that proposal.

5. The informal working group considered the proposal for the 2019–2020 programme of work and adopted it with some modifications and proposals for four new items. The new items concerned the use of rescue winches, the use of fire and naked light, editorial corrections and the application of a six-month deadline for examinations following specialization courses.

6. For item 1.2.2 (substantive questions) of the programme of work, Germany and the Netherlands agreed to submit a joint proposal for the substantive questions to be revised at the next meeting of the informal working group, which would continue to deal with them.

7. For item 1.3.1 (questions on first aid measures), the informal working group agreed that it was necessary first to wait for the work to be done by CESNI.

8. For deleted item 2.3 (teacher training), participants agreed that the work of CESNI on the training of navigational personnel should be followed and that the item could possibly be proposed again for a new programme of work.

# III. Continuous adaptation of the ADN catalogue of questions 2019 (item 1 of the work schedule)

ECE/TRANS/WP.15/AC.2/2019/1 - Com. Secr. (ADN catalogue of questions 2019: General)

ECE/TRANS/WP.15/AC.2/2019/3 – Com. Secr. (ADN catalogue of questions 2019: Chemicals)

ECE/TRANS/WP.15/AC.2/2019/2 - Com. Secr. (ADN catalogue of questions 2019: Gas)

CCNR-ZKR/ADN/WG/CQ/2019/7 – Com. Secr. (Summary – ADN catalogue of questions 2019: General)

CCNR-ZKR/ADN/WG/CQ/2019/8 – Com. Secr. (Summary – ADN catalogue of questions 2019: Chemicals)

CCNR-ZKR/ADN/WG/CQ/2019/9 – Com. Secr. (Summary – ADN catalogue of questions 2019: Gas)

CCNR-ZKR/ADN/WG/CQ/2019/10 - Com. NL

ECE/TRANS/WP.15/AC.2/2011/4-17 – Com. Secr. (Confidential documents, ADN 2011 substantive questions; could be made available during the meeting)

#### 3.1 ADN 2019

(Item 1.3 of the programme of work)

9. The informal working group examined and discussed the ADN catalogues of questions 2019: General; Gas; and Chemicals. In particular, editorial improvements were included in the catalogue of questions – Gas on the basis of the Austrian proposal. The simplified syntax should contribute to a better understanding of the questions. The revised catalogues of questions would be distributed by the CCNR secretariat as revised versions (rev. 2) and used as a basis for further work.

10. The informal working group agreed to continue to simplify the wording of the questions at the next meeting. It also agreed that questions should basically be worded in an impersonal manner in order to further improve their intelligibility.

# **3.2** Adaptation of the directive on the use of the catalogue of questions for the ADN expert examination

(Item 2.1 of the programme of work)

ECE/TRANS/WP.15/AC.2/2019/7 CCNR-ZKR/ADN/WG/CQ/2019/4

11. The informal working group discussed and further developed the directive on the use of the catalogue of questions for the ADN expert examination. The CCNR secretariat would distribute the revised version.

12. The informal working group discussed the proposed amendments to the directive and agreed, for paragraph 51, that two points should basically be awarded for every substantive question. It was proposed to delete the third sentence and the first sentence in brackets, and to introduce that amendment to paragraph 36 as well. Paragraphs 36 and 51 of the directive should read: *"The candidate shall have 90 minutes to complete this part of the examination. The maximum number of points that may be obtained is 30. Up to two points may be awarded per part of the substantive question."* 

13. The informal working group noted that, in addition to pocket calculators, the documents specified in the directive in paragraphs 33 and 48 and ADN in 8.2.2.7.1.6 were to be provided by the examination boards for the examinations.

14. With respect to paragraphs 25 and 40 of the directive, the informal working group considered how many times an examination could be taken again within the recommended time limit of six months after completion of the course. Everyone agreed that the opportunities for retaking examinations are already limited in practice, as examination bodies only offered a limited number of dates for taking the examination, and there was generally no mutual recognition of foreign training centres. (An exception: Austria, for example, recognized the training centre in Duisburg, Germany.) Information on that subject should be collected in the signatory countries and then discussed in the informal working group to determine whether a possible number of times should be specified in 8.2.2.7.1.5.

It was further proposed also to recommend in 8.2.2.7.2.1 and 8.2.2.7.1.1, in the second sentence, a possible six-month time limit for taking the examination.

# IV. ADN expert training examination (item 2 of the programme of work)

#### 4.1 Research report on the administration of ADN examinations

CCNR-ZKR/ADN/WG/CQ/ 2019/6 (visit report) ECE/TRANS/WP.15/AC.2/70, para. 27

15. The informal working group noted with satisfaction the study commissioned by the navigation industry on extending the time allowed for the ADN expert examination. A very positive development was that a translation of the study was also available. The informal working group was carrying out a detailed review of the study.

(See in this regard the study in informal document INF.14 of the thirty-fourth session.)

16. The informal working group held a contentious exchange of views on the proposal to extend the duration of the examination from 60 minutes to 75 minutes.

17. The representative of the Netherlands pointed out that, in the Netherlands, participation in a basic ADN course was mandatory for apprentices who attended training in a school. It should be noted that some of the candidates had only a low level of language skills. Those candidates were basically qualified to be drivers, even for the transport of dangerous goods. However, they needed a little more time on the ADN examination to understand the questions. Although the failure rate in the Netherlands was comparable to that of other countries in percentage terms, the number of examinations taken was much higher. For some apprentices, the coupling of training with an academic education made the path towards a career as a driver difficult, if not impossible. The representative was of the view that the advantages of extending the duration of the examination were certainly not obvious, but he would also have no problem with a slight extension.

The representative of EBU/ESO said that EBU/ESO basically aimed to train all 18. shipboard personnel in ADN. He pointed out that ADN had become both larger in scope and more complex. Candidates therefore needed a little more time to understand the questions and the situation than the two minutes per question initially allotted. He further indicated that it had been scientifically established that about 12% of the labour force (working population) had difficulties in reading and writing. However, those people could still be very good drivers. The study also concluded that some of the candidates had an A1 to A2 language level, while the questions in the catalogue of questions are formulated at a C1 level. Candidates could certainly read and understand the questions but needed more time than a candidate with a B1 or C1 level. This led to the observation that these candidates did not have sufficient time. As a result, candidates did not pass the examination solely because of their low language level. The representative recalled that the main objective of the examination was to objectively determine the candidate's level of knowledge. The proposal did not aim to lower the level of the examination but to improve the examination conditions for candidates with a low language level.

19. The German representative was of the opinion that an extension of the duration of the examination would only be justified if the scope of ADN had changed considerably. The study carried out by the profession did not provide clear evidence that candidates did not pass the examination solely because of their low language level. An expert report of the National Institute for Vocational Training commissioned by the German delegation did not corroborate the findings and assessments of the study commissioned by EBU/ESO on all points. Rather, the German report concluded that the questions were formulated in too complicated a way and should therefore possibly be adjusted. Once the Federal Ministry of Transport and Digital Infrastructure had the final version of the expert report, the German delegation would make it available to the informal working group on training. In his opinion, an increase in the duration of the examination would not allow for the quality of the training to be maintained or improved but would rather lower it.

20. The Swiss representative proposed that the Netherlands should examine whether the ADN examination could not be separated from vocational training. For example, the contents of ADN could be taught during the training but without carrying out an ADN expert examination afterwards.

21. The Belgian representative agreed with the observation that the level of language in inland navigation was rather low and therefore the texts were difficult to understand. The candidates were fully capable of establishing correlations but needed more time to grasp complex questions.

22. The Chair recalled the objective of the training, which was to maintain the highest possible level for the shipboard personnel in inland navigation, in particular on vessels carrying dangerous goods. He summarized the historical background of the changes in the examination process and noted that, in the past, the duration of the examination had already been extended for the Gas and Chemicals specialization courses. The discussion suggested that this could be a matter of a particular problem of vocational training in the Netherlands. He also indicated that, while the scope of ADN had increased, the catalogue of questions had remained largely unchanged. Similarly, in most signatory countries, the results of the

examination had not changed significantly. He summarized the discussion in the following manner:

- The navigation industry would appreciate it if the widest possible circle of shipboard personnel had a ADN expert certificate.
- Differences in language level could lead to longer times to deal with the questions.
- It should be considered whether, instead of the current three incorrect answers, only two incorrect answers should be given per question in the catalogue of questions.
- The working group was unanimous on the fact that the level of the examination and training must at least be maintained and, if possible, improved.
- However, there was still no agreement on how to achieve improved examination results.

23. The informal working group agreed to continue the discussion at the next meeting. In the meantime, it should be examined whether the number of possible incorrect answers could be reduced from three to two, whether the catalogues of questions could be reviewed externally in terms of training and whether the questions could be simplified on the basis of the recommendations of the available studies. The informal working group also agreed that the level of the examination should not fundamentally be lowered by any potential solution.

#### 4.2 Recognition of training courses in accordance with 8.2

24. The Chair noted that no communication had been received on this item.

#### 4.3 Harmonization of Chapter 8.2 "Requirements concerning training" with ADR

ECE/TRANS/WP.15/AC.1/2019/5 – Online refresher training for drivers

OTIF/RID/RC/2018/10 (ident. ECE/TRANS/WP.15/AC.1/2018/10)

25. The informal working group discussed the proposal of the Joint Meeting on online training for the refresher course and the possible consequences for training in inland navigation.

26. The Austrian representative considered that the proposal was still too vague, in particular with respect to the understanding of the concept of distance learning.

27. The Chair noted that the informal working group had approved the existing standard training and therefore did not currently see the need to include the proposals for RID/ADR in the provisions on distance learning in ADN. In order to harmonize the requirements, it would be proposed to the ADN Safety Committee to allow distance learning in ADN also for the refresher course (8.2.2.5 ADN).

#### 4.4 Training content according to 8.2.2.3.1 ADN

CCNR-ZKR/ADN/WG/CQ/2019/13 (Training content - EBU)

28. The representative of EBU/ESO put forward a proposal on training content.

29. The informal working group was preparing a proposal for the revision of 8.2.2.3.1 and 8.2.2.3.2. (see annex 1).

#### 4.5 Analysis of examination statistics

30. The Chair presented a proposal for a table for the analysis of national examination statistics (see annex 2).

31. The informal working group agreed that the table would be revised by the next meeting and that the Safety Committee would be invited to request member States to transmit their statements to the ECE secretariat for the January 2020 meeting on the basis of that proposal.

# V. General issues concerning the catalogue of questions (item 3 of the programme of work)

CCNR-ZKR/ADN/WG/CQ/2019/10

32. The representative of the Netherlands informed the informal working group of an error in the French, English and Russian versions of 8.2.1.4 ADN. The German version, which provided for a total of three examinations, was correct.

33. The Chair invited the secretariat to attach the agreed amendment as an annex to the report. (If the <u>retaken</u> test is not passed after two times then ...).

34. The informal working group agreed to include in 7.2.4.41 a reference to electronic cigarettes.

35. The informal working group was also considering whether the regulations on the prohibition of fires and naked lights should be incorporated into Part 7 or Part 8. Discussions on this subject could be continued at the next meeting.

# VI. Schedule

36. Mr. Pruyn was attending the meeting of the informal working group for the last time. The Chair thanked him for his dedication and for the work he had done in the working group. On behalf of the working group, he wished him well for his retirement.

37. The informal working group decided that its next meetings would be held in Strasbourg from 2 to 4 April 2020. The meetings would begin at 2 p.m. and finish at 1 p.m.

# Annex 1

# Proposal for the revision of 8.2.2.3.1 and 8.2.2.3.2

## Chapter 8.2

8.2.2.3.1	Under " <b>Basic course on transport by tank vessels</b> " Replace "Knowledge: ADN in general, except Chapter 3.2, Tables A and B, Chapters 7.1, 9.1, 9.2 and sections 9.3.1 and 9.3.2" with "Knowledge: ADN in general, except Chapter 3.2, Table A, Chapters 7.1, 9.1 and 9.2".
8.2.2.3.1	Under " <b>Basic course – combination of transport of dry cargo and transport in tank vessels</b> " Replace "Knowledge: ADN in general, except sections 9.3.1 and 9.3.2" with "Knowledge: ADN in general".
8.2.2.3.2	Under " <b>Refresher training course on transport by tank vessels</b> " Replace "Knowledge: ADN in general, except Chapter 3.2, Tables A and B, Chapters 7.1, 9.1, 9.2 and sections 9.3.1 and 9.3.2" with "Knowledge: ADN in general, except Chapter 3.2, Table A, Chapters 7.1, 9.1 and 9.2".
8.2.2.3.2	Under " <b>Basic course – combination of transport of dry cargo and transport in tank vessels</b> " Replace "Knowledge: ADN in general, including sections 9.3.1 and 9.3.2" with "Knowledge: ADN in general".

# Annex 2

## Training of experts according to Chapter 8.2 of ADN

Examinations carried out and results

Signatory country: .....

Statistics for the period 1 January 2020–31 December 2020

Type of examination	Number of examination dates	Number of candidates	Number of examinations passed	Success rate %
ADN basic course – the transport of dry cargo				
ADN basic course – transport by tank vessels				
ADN basic course – combination of transport of dry cargo and transport in tank vessels				
ADN specialization course – Gases				
ADN specialization course – Chemicals				



Style guide for the development of multiple-choice written tests

Developed by CBR, CCV division in cooperation with CINOP Advies.

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<sup>\*</sup> Reproduced as received.

# Introduction

This style guide is intended for authors of examination topics of CCV (Professional Competence Liaison Committee in the Netherlands). The style guide is intended to serve as instructions for the drafting of new topics (examination questions) and as a consultation paper during the drafting process.

By measuring the degree of professional competence of candidates who take a written examination, CCV will know if it is sufficient to grant them a diploma or certificate. This is only possible if the tests are valid and reliable. A test is considered valid when it measures what it claims to measure. For example, if the test contains many complicated terms, it measures not only professional competence, but also linguistic ability. In this case, the test is less valid. A test is reliable when the same results are obtained regardless of when it is taken.

As an author of tests, you play an important role in the examination process. Indeed, an examination cannot be composed if the tests are lacking.

The information in this style guide can be useful when drawing up tests of high quality.

The style guide is composed of three chapters.

Chapter I deals with the test matrix, the basis for any examination.

Chapter II deals with the language level (B1) of the examination.

Chapter III deals with the quality requirements for closed questions (multiple-choice questions).

Lastly, you will find two annexes at the end of the style guide.

Annex 1 is a checklist. You can use it to check the questions you have developed.

Annex 2 is a glossary of terms. The glossary serves as a reference so that the tests are adapted to the level of linguistic proficiency required.

Annex 3 provides an overview of the internal agreements relating to the different markings. This annex is designed to ensure that banks of questions ensure consistency in writing practices.

Below you will find links to other websites and documents that may be useful to you in your work as an author of tests:

- www.cbr.nl/ccv.pp
- www.zoekeenvoudigewoorden.nl
- www.synoniemen.net
- www.onzetaal.nl

If you have any questions or comments about this style guide, you can contact the CCV Product Management Department by calling 0900 0210.

## **Chapter I: Test matrix**

The test matrix contains the subjects that make up the examination. The use of the test matrix allows several versions of an exam with equivalent content and difficulty.

The test matrix contains the following information:

1. Main objectives

The main objectives are the main topics of the examination.

2. <u>Prerequisites</u>

The prerequisites are the elements that constitute a main objective. A main objective outlines what can be requested during the examination. A prerequisite defines it more precisely. A main objective often has several prerequisites.

3. <u>Delimitation:</u>

The delimitation of a prerequisite indicates which topics may be the subject of questions during the examination. If for a prerequisite no delimitation is indicated, this means that in principle everything can be requested on this topic.

4. <u>Taxonomy guide:</u>

Each prerequisite has a taxonomy guide. This taxonomy guide indicates the level of proficiency at which the questions related to this prerequisite are placed.

CCV uses Romiszowski's taxonomy:

**F** Factual knowledge:

The candidate can reproduce facts (remember or acknowledge)

**B** Conceptual knowledge:

The candidate can describe concepts or principles (understanding).

**R** Ability to reproduce:

The candidate may perform actions according to a fixed procedure (standard procedures or actions that occur regularly).

**P** Ability to produce:

The candidate can perform actions for which his or her own creativity and understanding are required (new solutions for new problems).

Examples of a main objective, a prerequisite, delimitation and the taxonomy guide and the related question are as follows:

Main objective: the candidate has knowledge an	nd understanding of how a load should be	transported safely.
Prerequisites: the candidate knows how to	Delimitation:	Taxonomy guide:
call the consequences of an overload.	<ul> <li>heavy fuel consumption</li> </ul>	F (factual)
	<ul> <li>increased wear and tear</li> </ul>	
	<ul> <li>road damage</li> </ul>	

Question:

What is the consequence of an overload?

### Chapter II: Basic Dutch for examinations (language level B1)

An examination is used to check that a candidate has sufficient professional competence. It is important that the texts of the examinations are not too difficult. Indeed, a text containing difficult terms and complicated sentences would also be a test of linguistic ability. A candidate with a low level of language skills does not understand these texts and may not pass the exam successfully.

Each text has a language level. There are six language levels:



A1 is the lowest level and C2 the highest. You must have a good command of level A2 to be able to pass the integration examination successfully. At least level B1 must be mastered in order to be able to follow a secondary vocational education course or to obtain a skilled job. Level C concerns advanced language skills (higher vocational school or university).

95% of people of the Netherlands understand B1 level texts. Even people with a high level of linguistic ability prefer to read B1 level texts. These texts are quick and easy to read.

CCV aims to use this language level for examinations.

Below you will find some characteristics of level B1:

- Short, clear sentences (about 8 to 12 words);
- Frequently used simple terms known to everyone (for example, *broken* instead of *defective*);
- Active sentences instead of passive ones (for example, *the driver unloads* instead of *the cargo is unloaded by the driver*).

If you have any doubts about the use of a term in a question, you can visit the website www.zoekeenvoudigewoorden.nl (Dutch site to search for simple terms). Here you can check whether a term is mentioned in the B1 language level list. If the term does not appear, you can replace it with another term by consulting the website www.synoniemen.net (Dutch site for synonyms).

#### **Chapter III: Quality requirements for closed questions**

Currently, the CCV division of CBR (central driving license agency in the Netherlands) uses mainly closed questions for written tests. There are several types of closed questions. The most common form is the multiple-choice question.

A multiple-choice question consists of a stem (interrogative sentence), a key (correct answer) and distractors (wrong answers).

Developing new questions is not an easy task. Experience shows us that it is especially difficult to find good "distractors" (wrong-response options).

A good question implies that candidates must pay serious attention to all the answers before choosing the right one. Only candidates who have studied the examination material should be able to recognize the correct answer. The correct answer should not be apparent due to length, language and wording.

Below you will find a description of the quality requirements that a good multiple-choice question must meet.

#### 1. The stem must contain a clear question

In fact, the candidate must already know the correct answer after reading the stem (the interrogative sentence). Therefore, it is not intended that he or she should start by reading all the answers in order to understand the meaning of the question.

To be avoided:

Which statement concerning the certificate of conduct is correct?

Several answers can be given to this question. Therefore, the candidate must first read all the answers before understanding what the correct statement is:

- A. The certificate of conduct is issued by NIWO (licensing authority for road transport in the Netherlands).
- *B. By issuing the certificate, the requirement for professional competence is met.*
- *C.* A person who is in fact in charge of a transport company must produce a certificate of conduct.\*

The question should be worded differently. Three questions about the certificate of conduct can lead to these answers:

- A. Which authority issues the certificate of conduct?
- B. How can a contractor prove that it meets the reliability requirement?
- C. Who is the person in a company who must produce a certificate of conduct?

Hint:

Answer the question without looking at the right answer. Does the question lead to the right answer? Then, the question is clearly asked and leads to the right answer.

#### 2. Only questions whose answers require professional knowledge should be posed

Questions based on general knowledge will be to the advantage of candidates who have not studied the examination material. The candidate's professional knowledge is not tested by asking such questions, so it is not appropriate. If you want to know if the candidate has the required professional knowledge, you must ask questions about the content that take into account the test matrix.

Nor should a candidate be given an advantage because of his or her background (for example culture, age or belief).

For example: a candidate from Groningen will probably know the road junctions of this province better than a candidate from Limburg. Of course, it is permissible to ask a question about the recognition of road junctions if this topic is included in the test matrix.

Hint:

Always use the test matrix as a basis for developing the questions.

You are a specialist yourself. Consider whether the candidate will become a better specialist if he or she can answer the question you have asked.

#### 3. Avoid questions with a "yes" or "no" answer

Many questions can be answered with a simple "yes" or "no". It is not a problem if plausible distractors can be drawn up that are independent of each other. Still, it is often difficult to find a good last distractor. The answers are then supplemented by the term "but" or "unless". This makes it possible to formulate a third or fourth distractor. Here is an example:

A taxi driver is stopped by the police. Does the driver have to show his or her certificate of conduct?

- A. Yes, the driver must show his or her certificate of conduct.
- B. No, the driver does not need to show his or her certificate of conduct.
- C. No, but the driver must show his or her driving license for taxis.

Therefore, candidates must be aware that they are not required to not show their certificates of conduct but should show their driving licenses for taxis. In fact, these are two questions in one and answer B is not wrong. This can be avoided by asking the question as follows:

A taxi driver is stopped by the police. Which documents must the driver show?

- A. His or her driving license for taxis and driving license.
- B. His or her driving license for taxis and certificate of insurance.
- C. His or her certificate of conduct.

Hint:

By including a correct document in all answers, the question is more difficult for candidates who have not studied the examination material.

# 4. Does the question contain the notion of an action? If so, there is a need to find an action for every answer

A question can describe a situation that requires action. The candidate must then choose the answer in which the action concerned corresponds to the given situation. Sometimes in the last answer it is indicated that no action is necessary. It may be the right answer, but it is rarely the case. In this case, it is better to formulate the question differently.

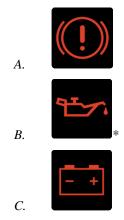
To be avoided:

A red light on the dashboard lights up while driving. What should the driver do?

- A. The driver should go to the nearest garage as soon as possible.
- B. The driver should stop the vehicle in an appropriate place as soon as possible.
- C. The driver does not need to take any action.

#### The right wording:

Which light, when it lights up, requires a driver to stop the vehicle immediately in an appropriate place?



#### 5. Avoid any negative wording

The use of terms such as "do not" or "none" in a question can make it more difficult. Candidates must then invert their knowledge. They must remember what they have learned and choose the answer that should not be included. This requires not only professional competence but also linguistic ability. This is exacerbated if one of the distractors also contains a negative construction.

To be avoided:

Which factor is not part of the fire triangle?

- A. Oxygen
- B. Temperature
- C. The mixing ratio.\*

The right wording:

What factors make up a fire triangle?

- A. Oxygen, heat and mixing ratio.
- B. Oxygen, heat and fuel.\*
- C. Catalyst, heat and fuel.

A negative construction is possible when it is important for candidates to know that something is not allowed. The negative construction should then appear **in bold** so that candidates will notice it.

This is allowed:

The use of a breathing mask is required in a room that is sealed for a long time. What type of mask is absolutely **not allowed**?

#### 6. Avoid absolute and vague formulations

Absolute formulations are rarely true. This is why terms such as "not", "never", "only", "always", "all" and "certain" should be avoided in the answers. The addition of these terms alone makes the answer incorrect.

Vague wording often points to the correct answer. For this reason, terms such as "often", "sometimes", "generally", "hardly" and "some" should be avoided in the answers. The addition of these terms alone makes the answer correct.

#### 7. Avoid having terms mentioned in the stem repeated only in the correct answer

When only the right answer contains the terms mentioned in the question, the distractors become less attractive. Avoid as much as possible the echo effect of the next question.

#### What is the purpose of the dirt-collecting main under the daily-supply tank?

- A. It is used to collect and cleanse the **dirt**.
- *B. It is used to check the fuel performance.*
- *C. It is used to increase the contents of the tank.*

#### 8. Avoid unnecessary information

Unnecessary information diverts candidates' attention. This tests written comprehension and not knowledge. Therefore, only the text will be used to answer the question.

#### 9. Formulate the question in the third person

Questions on CCV examinations are always written in the third person. Reference is thus made to the "driver" and not to the second person "you".

To be avoided:

You are on your way to a customer.

The right wording:

A driver is on the way to a customer.

Examination questions for the T category of the driving licence are an exception to this rule. "You" is used there.

#### **10.** Avoid double negatives

Questions with a double negative are confusing. A sentence becomes affirmative since a double negative cancels the negation. The phrase "*it is not impossible*" actually means "*it is possible*".

To be avoided:

Up to what blood alcohol level will the police not prohibit a driver from no longer driving?

The right wording:

At what blood alcohol level will the police withdraw the driving licence?

#### 11. The right answer should not give rise to a debate

Several experts must indicate the same option as the correct answer. This is only possible if the question is based on facts and not opinions.

#### 12. Ensure that all responses are equivalent in length and wording

It may be difficult to formulate a response in a concise and clear manner. This is why it often contains more text (details) than detractors. The correct answer can thus be inadvertently indicated.

Hints:

Do not literally repeat the text of a law. In this case, the answer will be made conspicuous by the formal language.

Limit the number of words by providing only the main elements in the correct answer.

Does the correct answer still contain more text than the question? In this case, try to give the same length of text to the other options.

#### 13. Invent plausible (convincing) detractors

All detractors must be plausible; otherwise candidates will not choose them as an answer. Even a candidate who has not studied the exam material can immediately rule out such a detractor. If one of the detractors is ruled out from the outset, it will be easier to make a rough guess. For example, do not cite things that do not exist (e.g., a law that does not exist or a situation that does not occur in practice).

Hints:

You cannot manage to find a good last detractor? Try to ask the question differently.

Are you a teacher? Then, consider the mistakes frequently made by candidates to come up with a good detractor.

When the candidate has to give a definition, use the definition of another subject from the test matrix for detractors. For example

Example:

What is contractual transport?

- A. Good answer (definition of contractual transport).
- *B.* Detractor 1 (definition of a street taxi).
- C. Detractor 2 (definition of on-demand public transport).

#### 14. Avoid using the answer "all/none of the above"

The answer "all/none of the above" can never be a direct answer to the question. In this case, the candidate must first have read the other answers. In addition, where applicable, the answers must be mentioned in the same order in each examination. The answers should be as varied as possible in the case of an examination with numbers.

To be avoided:

Which animal diseases entail a transport ban?

- A. Foot-and-mouth disease and paratuberculosis.
- B. Foot-and-mouth disease and African swine fever.\*
- *C. All of the above.*

This problem can easily be solved by citing two animal diseases that do not entail a transport ban.

#### 15. List the answers in the same order

Respect as much as possible the order of the items in the answers in case some are the same.

To be avoided:

What items does a driver have to check every day?

- A. Liquid level, injection pressure, tyre pressure.
- B. Leaks, tyre pressure and fluid levels.\*
- C. Tyre pressure, brake pads and leaks.

The right wording:

*A. Tyre pressure, fluid level and injection pressure.* 

- B. Tyre pressure, fluid level and leaks.\*
- C. Tyre pressure, leaks and brake pads.

# cbr⊅

#### Appendix 1 DEVELOPMENT CHECKLIST GENERAL ITEMS TO BE CHECKED

Elements to be determined	In order
From the point of view of content, the test is consistent with the prerequisites and delimitation	
The test is consistent with the taxonomy system of prerequisites	
Only one answer is right	
The language level is appropriate for the target group	

### ITEMS OF THE STYLE GUIDE TO BE CHECKED

No.*	Elements to be determined	In order
1.	The stem must contain a clear question	
2.	Professional knowledge is required to answer this question	
3.	This is not a question that can be answered with a "yes" or "no".	
4.	If the question implies that an action must be taken, all answers contain the notion of an action	
5.	The question does not contain a negative construction	
6.	The question and answers do not contain absolute and vague wording	
7.	The terms in the stem are not repeated only in the right answer	
8.	The question does not contain unnecessary information	
9.	The question was formulated in the third person	
10.	The question does not contain any double negative	
11.	The right answer should not give rise to a debate	
12.	Ensure that all responses are equivalent in length and wording	
13.	The detractors are plausible (convincing)	
14.	The answer "all/none of the above" is never used	
15.	The list of items in the answers are in the same order	

\* The number in the list of items to be checked corresponds to the number in the style guide.

### ITEMS OF THE STYLE GUIDE TO BE CHECKED

No.*	Elements to be determined: what is correct:	In order
1.	The stem contains a clear question	
2.	Professional knowledge is required to answer this question	
4.	If the question implies that an action must be taken, all answers contain the notion of an action	
9.	The question was formulated in the third person	
12.	Ensure that all responses are equivalent in length and wording	
13.	The detractors are plausible (convincing)	
15.	The list of items in the answers are in the same order	
No.*	Elements to be determined: what is correct:	In order
3.	This is not a question that can be answered with a "yes" or "no".	
5.	The question does not contain a negative construction	
6.	The question and answers do not contain absolute and vague wording	
7.	Only the right answer contains terms in the stem	
8.	The question contains superfluous information	
10.	The question contains double negative	
11.	The right answer gives rise to a debate	
14.	The answer "all/none of the above" is used	

\* The number in the list of items to be checked corresponds to the number in the style guide.

### Appendix 2: Verbs from taxonomy guides

# Factual knowledge (F):

Examples of verbs that indicate factual knowledge	
indicate	provide a definition of;
point out	indicate the place of;
describe	identify the ways of proceeding;
recognize	draw up a list of;
name	indicate elements
underline	
list	
enumerate	

# Conceptual knowledge (B)

Examples of verbs that indicate factual knowledge	
complete	put in your own words;
categorize	indicate contradictions;
classify	indicate the subject;
combine	give an example of;
define	see the context;
formulate	see the gist;
identify	explain the graphics;
illustrate	transposition of a material from one form to another (put
divide up	numbers instead of terms);
interpret	predict the effects;
discern	make a comparison between;
characterize	arrange
describe	
distinguish	
arrange	
classify	
summarize	
select	
set out	
explain	
clarify	

# Ability to reproduce: (R)

Examples of verbs that ind	icate factual knowledge		
Cognitive	Psychomotor	Interactive	Reactive
(with the head)	(with the body)	(with others)	(Norms and values
			attitude/point of view)
read (a measuring	set up	discuss	recommend
instrument)	settle	deliberate	accept
determine	outline	present	be a service provider
experiment	operate	cooperate	approve
calculate	confirm	sell	agree with
decide	deal with		collaborate
code	penetrate		observe
check	build		
read	demonstrate		
constitute	take apart		
search for	use		
consult	finalize		
record	fuse		
compose	shape		
apply	assemble		
calculate	maintain		
set	place		
compare	put		
prepare	draw		
create	collect		

## **Productive skills: (P)**

Examples of verbs that indi	cate productive skills		
Cognitive	Psychomotor	Interactive	Reactive
(with the head)	(with the body)	(with others)	(Norms and values
			attitude/point of view)
demonstrate	manufacture	advise	recommend
deduct	restore	argue	admit
analyse	repair	discuss	accept
criticize	maintain	help	be a service provider
judge	build	collaborate	approve
prove	place	justify	acquiesce
combine		handle	
conclude		organize	
note		convince	
coordinate		participate	
define		protest	
evaluate		cooperate	
generalize			
assess			
read, imagine			
plan			
report			
relativize			
sketch			
invent			
create			
prepare a job			

# Appendix 3: elements of style

5.2

Punctuation marks

### Contents

1.	Abbreviations
1.1	Abbreviations in general
1.2	Prepositional phrases
2.	Distractors in general
2.1	Distractors starting with the same terms
2.2	Order of distractors with numbers
3.	Figures and numbers
3.1	Numbers in general
3.2	Numbers in series or belonging to a larger group
3.3	Ordinal numbers
3.4	References to illustrations/pages
3.5	Exact values (such as measurements, temperatures, masses and years)
4.	Units
4.1	Units of measurement
4.2	Speeds
4.3	Amounts
4.4	Time
5.	Lists
5.1	General

#### **1.1** Abbreviations in general

Spell out abbreviations as much as possible. (The use of abbreviations makes a text less accessible to the reader.)

#### **Exceptions**

1. Common abbreviations of names and institutions. Depending on the name or institution, the full name or abbreviation of the name of the institution is to be used. When using a full name followed by the abbreviation in brackets in the question, it is sufficient to use only the abbreviation in the answers.

2. Jargon. Depending on the concept, the names are to be written in full or abbreviated (e.g. ADN, ADR).

#### 1.2 Prepositional phrases

Replace prepositional phrases as much as possible with a single preposition.

For example:

By instead of by means of.

On instead of relating to.

#### 2. Distractors in general

#### 2.1 Distractors starting with the same words

Sometimes all distractors start with the same words. In these cases, all the text is put in the distractors and not in the question itself. See the example below.

How often is a taxi driver allowed to work at night according to the "bijzondere overlegregeling" (special consultation arrangement)?

- A. Not more than 38 hours in any three-week period.
- B. Not more than 26 hours in any three-week period.
- C. Not more than 26 times in any thirteen-week period.

Sometimes it is possible to depart from the rules. For example, when it is really a large number of (the same) words. Or if the fact of repeating the text in question in the distractors clearly hinders readability.

#### 2.2 Order of distractors with numbers

Distractors with numbers should, as far as possible, follow a certain order. Other distractors should be mixed as much as possible in the system.

#### 3. Figures and numbers

#### 3.1 Numbers in general

Numbers expressed in words

Numbers up to twenty: two, nine, seventeen, eighth

Tens up to a hundred: twenty, fifty, eighty

Hundreds up to a thousand: three hundred, nine hundred

Numbers expressed in figures

From 21 upwards (except for the round numbers mentioned above): 21, 22, 576

Large numbers and round numbers from one thousand upwards: 5,000/100,000 (with a comma)

In the case of very large numbers, it is possible to combine figures and letters: *123 million*, *16 billion*. This avoids having a large number of zeros at the end.

#### Exceptions

1. It is better to use numbers in the event there is an odd mix of words and numbers.

To be avoided:

Seventeen of the 45 candidates failed and 28 passed.

Rather:

17 of the 45 candidates failed and 28 passed.<sup>1</sup>

#### 3.2 Numbers in series or belonging to a larger group

It is preferable to use numbers when numbering elements of a larger set or a series. *Chapter 1, paragraph 3.4, option 1, part 1 to 7, class 5, group 6.* 

#### 3.3 Ordinal numbers

Ordinal numbers up to twentieth are expressed in words (first, second). Numbers from 21st upwards are expressed in figures.

#### 3.4 References to illustrations/pages

Figures (figure 1/page 2)

#### 3.5 Exact values (such as measurements, temperatures, masses and years)

The exact values are always expressed in figures.

Examples:

The maximum speed in urban areas is 50 km per hour. Tomorrow it will be  $14 \ ^{\circ}C.^{2}$ 

#### 4. Units

#### 4.1 Units of measurement

The units of measurement ("meter" and "kilometer") are written in full. For example: *Where is parking prohibited? At a distance of at least 10 metres from the crossroads.* 

#### 4.2 Speeds

The speeds are written out in full: 130 kilometres per hour.

#### 4.3 Amounts

In questions and distractors: €150

In lists:

€150.00 (with regard to readability)

The amounts are indicated with the  $\notin$  symbol. In the event that amounts in a review include figures after the decimal point ( $\notin$ 12.50) all amounts, even round ones, must include figures after the decimal point ( $\notin$ 15.00).

In the case of a series (e.g. presentation of annual accounts), the  $\in$  symbol is not repeated each time, but it is replaced by a dash (-). Above the (sub)total is underlining; the total is underlined twice.

Example: €35.50 - 12.00

 $<sup>^{1} \ \ {\</sup>rm Recommendation\ partly\ taken\ from\ https://onzetaal.nl/taaladvies/advies/getallen-in-letters-of-cijfers.}$ 

<sup>&</sup>lt;sup>2</sup> https://onzetaal.nl/taaladvies/advies/getallen-in-letters-of-cijfers.

$$\frac{-17.45}{\pounds 64.95} +$$

#### 4.4 Time

22 hours

#### 5. Lists

#### 5.1 General

In the case of a list, it is preferable to include each figure listed below the other preceded by a dash. The figure listed must be preceded by space between the lines.

#### 5.2 **Punctuation marks in lists**

The introductory sentence of a list ends with a colon.

When the list is made up of complete sentences, each sentence begins with a capital letter and ends with a full stop (or question mark).

Example:

We list the benefits:

- The dwelling is located on private land.
- The roof has been recently renovated.
- The garden faces southwest.

In a list that consists of individual terms or parts of a sentence, each part begins with a lower case letter and ends with a semicolon. In this case, only the last item in the list ends with a full stop.

Example:

When organizing a children's party it is important to know:

- how many children are expected;
- what the various things will cost;
- what children like.

Punctuation marks may not need to be used if the list contains terms expressed in a few words or separate words.

The following insurances are required:

- health(;)
- property and house(;)
- civil liability(.)

It can happen that the items in a list are unequal: sometimes a complete sentence, sometimes a part of a sentence, sometimes individual words or terms. Try to balance the structure of the listed items. If this is not possible, select the format that is most suitable.<sup>3</sup>

<sup>&</sup>lt;sup>3</sup> Recommendation taken from https://onzetaal.nl/taaladvies/advies/opsommingen-leestekens-enhoofdletters.