

CHARTERED INSTITUTE OF LOGISTICS AND TRANSPORT IN IRELAND

PRINCIPAL MARKER'S REPORT FORM

DANGEROUS GOODS SAFETY ADVISER EXAMINATION

SUBJECT: PAPER 1

EXAMINATION DATE: 6th November 2019

PART TWO – COMMENTS MAY BE CIRCULATED

No Attempting Examination:	68
No Passing Examination:	52
% Pass Rate:	76.47%
Average Mark	37.43

A. General Comments

- This was the third set of exams to be based on the new examination system. The pass rate remains more or less the same as the July pass rate while the average mark is about two marks higher.
- Only one candidate scored 100% on the exam.
- Candidates should be reminded to take account of Special Provision (SP) 274 when this applies to Proper Shipping Names needed to answer questions and (a) not to neglect this SP when it applies including giving all the references for this SP as previously stated. On this occasion there was a similar but more important SP, SP61 to take account of which few did properly – see below.
- Candidates must be able to present and understand the data behind the Special Provisions and not just recite the Dangerous Goods List alone, as some candidates did, which will always cause marks to be lost.
- Candidates should familiarise themselves with the rules for the marking of vehicles carrying Limited Quantities (LQ) packages. Enlarged LQ marks are required on the front and rear of such vehicles when carrying more than eight tonnes of such packages and when the vehicle is a 12 tonner or above. Orange plates are *not* then required.

B. Comments on Individual Questions

Please make comments as appropriate for each question.

- Q1. This was a two-part classification question. The first part concerned the classification of a non-metallic flammable solid. Most candidates managed to work out the correct class, classification code and Packing Group of the substance from the data provided. However, preferably candidates should have shown more evidence of how they used the data in the question to arrive at their Packing Group decision.

In the second part, candidates were given some data which should have led them to Class 4.3, Packing Group III. 9% of candidates opted for Packing Group I. The criteria for Packing Group I are based on the production of flammable gas *per minute* whereas the data were given was based on the production of flammable gas *per hour*.

- Q2. Another two-part question, the first being about the classification of a substance with two dangers. It required candidates to determine the Packing Group of both dangers based on

the data presented in the question. The answer required candidates to show quite clearly from those data which Packing Groups applied to each of the dangers. 28% of candidates did not show clearly enough how they had used the data to reach their Packing Group decisions. Some candidates did not attempt the first part of this question. The Table of Precedence had to be used to sort out which danger took priority, in this case an oxidising danger above a minor toxic danger.

Part two, candidates were then asked to find an appropriate Proper Shipping Name and UN number. Candidates should have chosen UN 3099 as the best option. Six other incorrect UN numbers were suggested ranging from UN 1992 to UN 3387.

UN 3099 has Special Provision 274 attached to it meaning that a technical name had to be inserted after the main part of the Proper Shipping Name in brackets. 48.5% of candidates failed to do this. Some did not mention the need for the technical name at all while most gave insufficient references. For this type of question, it is expected to be answered as such.

- Q3. This was another two part question, this time concerning the Packing Instructions applicable to some used wet batteries. Many candidates found the two Packing Instructions part clear to answer and then gave as requested two of the conditions in which the used batteries could be transported in the second part.
- Q4. In this question, candidates were asked to say for a certain substance why it would not be necessary to use UN certified IBCs in order to transport it. It was well answered on the whole.
- Q5. This was an extensive question requiring classification and determination of the Packing Group of a substance and then to show how the goods would be described on an ADR transport document (such as a CMR note). The correct UN number for the substance was UN 1169. The incorrect alternative UN 1993 was suggested by 9% of candidates. 17.5% of candidates gave the incorrect Packing Group III when the boiling point temperature and flashpoint temperature indicated Packing Group II. 22% of candidates did not show clearly from the use of the data in the question.

In the second part, candidates were asked what could be done to decant the substance into smaller packages that could be transported in shrink-wrapped trays. Candidates were automatically required to recognise this as a Limited Quantities (LQ) question. A small number of candidates attempted an answer from the Excepted Quantities (EQ) provisions which was not acceptable as there are no provisions in Chapter 3.5 of the ADR for trays to be used to pack EQs.

To comply with the LQ requirements of ADR two layers of packaging have to be used. Inner packagings are required. In this case the inners were to be placed in an outer layer of packaging – the shrink-wrapped trays. For the answer, candidates were to state the *two* quantity limits which would have had to have been followed to do this legitimately i.e. that the individual inner packagings should not exceed 5 litres and that the trays should not weigh more than **20 kg**. 19% of candidates did not give the 20 kg limit for the trays. A further 15% gave the upper limit for e.g. boxes, 30 kg, which, in this case was incorrect. A further 16% of candidates did not give the 5-litre maximum for the inner packagings for

the substance in the question to be transported in trays as LQ.

A second sub-part of this second part of Question 5 concerned the mark to be applied to the trays. 15% of candidates wrote that full marking and labelling was required with the class label and UN number.

Unfortunately, 34% of candidates told me that the trays constituted an overpack. Candidates should familiarise themselves with the difference between a combination packaging (which is what the trays effectively are) and an overpack (if a bundle of the trays were put in a larger box to keep them all together).

The least correctly answered question on the paper, the third subpart of part two of Question five. This concerned the marks required on the vehicle carrying the trays and when such marking becomes necessary. The answer required candidates to say quite clearly that there was an 8-tonne threshold in the ADR by which if this quantity of LQ packages is being carried, marking of the vehicle front and rear with enlarged versions of the LQ mark becomes necessary. 74% of candidates did not mention the 8-tonne threshold as required by the question – see 3.4.14. Further, the 8 tonne threshold depends on the vehicle being a 12 tonner or more – see 3.4.13 (a). 37% of candidates went further in stating that two orange plates were required as would be the case for normal consignments of dangerous goods in packages.

Candidates were asked to give the dimensions for the enlarged LQ marks required on the vehicles. 40% of candidates did not answer this part of the question i.e. 250 mm x 250 mm.

- Q6. Candidates were asked to explain the meaning of two of the parts of a UN certification code for some packagings. The packagings were what are sometimes known informally as “superpacks” with a “V” following the part of the code describing the packaging. Most candidates worked out the meaning of the “V”. There was an “S” in the code signifying that the packaging could have to potential uses – either for the transport of solids *or* as an outer packaging for inner packagings. Superpacks are the latter, of course. This meant that if candidates did not say the two different meanings of “S” in the code – especially that they might be used for the transport of inner packagings, they lost a mark. 13% of candidates failed to mention the important word in the context of this question “or for inner packagings”

There was a second part to this question, concerning the height of the drop test to be performed when approving such packagings. The “X” in the code indicated possible usage for Packing Groups I, II or III. To achieve this approval the packagings would have to successfully pass a 1.8 metre drop test. 13% of candidates did not do this and a further 10% gave all three possible heights for the drop test; 0.8 m, 1.2 m and 1.8 m.

- Q7. This question was in three parts and concerned the transport of organic peroxides. The first part was about one of the special provisions for carriage CV 24. Candidates who knew CV24 appear to have found answering the question quite well. However, 15% of candidates could not attempt the first part.

In the second part, candidates were expected to realise that they needed to look at the

Instructions in Writing for drivers set out in 5.4.3 of ADR and in particular at the further information provided for drivers for packages displaying a Class 5.2 label. Like the above, those candidates that knew this answered the question quite well. However, 28% of candidates could not attempt this second part of the question.

Q8. The final question concerned whether a High Consequence Dangerous Good security plan would be needed for a given substance transported in tankers for counter-terrorism purposes. 13% of candidates did not attempt this question while a small number attempted an answer from some other part of ADR such as the codes which trigger the application of the vehicle supervision chapter 8.4.

C. Comments on Candidates' Performance (include identification of any gaps in knowledge\areas of weakness)

Any comments appear above.

D. Comments on the Marking Process

None.

SIGNATURE: DATE: 03.12.2019

Paper1report/
dgsa