

**PRINCIPAL MARKERS REPORT  
ALL CLASSES IRELAND  
JULY 2018**

**CHARTERED INSTITUTE OF LOGISTICS AND TRANSPORT IN IRELAND**

**PRINCIPAL MARKER'S REPORT FORM**

**DANGEROUS GOODS SAFETY ADVISER EXAMINATION**

**SUBJECT: ALL CLASSES**

**PART TWO – COMMENTS MAY BE CIRCULATED**

<b>No Attempting Examination:</b>	36
<b>No Passing Examination:</b>	29
<b>% Pass Rate:</b>	80.55%
<b>Average Mark</b>	36.39

**A. General Comments**

A lowish pass rate. No one quite made 100% but one candidate came within a whisker. Three candidates scored 90% or more.

This exam was notable for the number of candidates who got particular parts of questions wrong. I will explore this comment in greater depth in my comments on the individual questions.

When candidates are asked to answer questions “as fully as you can” they should take heed of this as should they not do so they stand to lose marks. Some answers were rather cryptic and less than fulsome.

Candidates should fully understand the difference between “single packagings”, “combination packagings” and “composite packagings” and that e.g. combination packagings are not overpacks. They should fully understand, too, what is meant by “inner packagings”, “outer packagings” and how these compare with the definition of “overpack”, noting that a combination packaging is not an example of the latter.

**B. Comments on Individual Questions**

*Please make comments as appropriate for each question.*

Q1. This question was in two parts. In the first part, candidates were asked to determine which of five gases was toxic, oxidising and flammable using their classification codes. It presented

most candidates with little difficulty. Candidates should draw a conclusion and tell me specifically which of the four gases had this triple danger classification code.

In the second part, candidates asked to give the meaning of a classification code from another class. Virtually every one got this right.

Q2 This was as substantial question in three parts. The first part concerned whether mixed packing is permitted by the ADR for two substances. It meant that candidates had to determine the Mixed Packing Provisions (MP) for the substances from the Dangerous Goods List which most managed to do. Most candidates worked out correctly by applying the maximum quantity of each product permitted by the MP applicable to the products concerned the minimum number of inner packagings which would have to be used to satisfy the them i.e. eight.

Candidates were asked as part of the first part of this question to say why the consignment could not be packed as Limited Quantities. The correct answer is that because one of the substances is in Packing Group I (PG) (this being the general rule for PG I) there is no allowance shown in the Dangerous Goods List, column 7(a) for the substance concerned. Check this again 45% of candidates either did not address this part of the question or if they did, gave another answer to that which I wanted.

In the second short part, candidates were asked to give a further condition under which the mixed packing of the two substances is allowable. The answer is found in the Mixed Packing Provisions that “providing they do not react dangerously with each other”. For me this is a fundamental piece of health and safety, as I have remarked before when similar questions have been used. Many got it right but disturbingly 25% of candidates gave some alternative answer or could not provide an answer, a situation which I cannot accept.

Finally, candidates were asked to state the danger marks and labels to be affixed to the mixed package. A few candidates omitted to tell me that both of the UN numbers for the substances concerned should appear on it. 25 % of candidates forgot to tell me that a subsidiary flammable liquid danger label was required.

Candidates were asked to “Give your answer as fully as you can”. Most candidates told me correctly that the double-arrow orientation mark was required on the package but no less than 832% of candidates failed to justify why this was the case. I expected candidates to tell me as part of their full answers that this was due to one of the substances being a liquid the UN 1722, the other being a solid. The orientation mark is required for packages containing inner packagings filled with liquids (but not for solids). If candidates were unsure whether the two substances were solids or liquids then the classification code for each one will tell them.

Q3 This question was also in two parts. It attempted to test candidates’ knowledge of how to use the Packing Instructions in Chapter 4.1 as well as the package marking and labelling rules. In the first part, candidates were asked determine the Packing Instruction for a given substance and then to work on it to determine the maximum quantity of the dangerous good concerned which could be put in a particular UN certified *composite* packaging, code 6HA2. It required candidates

to work on Packing Instruction P002 (the general purpose Packing Instruction for solids) and to determine for the Packing Group of the substance concerned and the kind of packaging to be used that there was a limit of 75 kg per package so that the 150 kg of the substance would need to be packed as a minimum in two such packagings.

There was a range of alternative answers for what is the maximum permitted mass allowed in these kinds of packagings ranging from 50 kg to 400 kg. Some others thought that this was a question about IBCs Large Packagings or even. On the other hand, a few tried an approach using the Excepted Quantities rules which was never going to work.

In the second part candidates were required to state the marks and labels to be affixed to the combination packages including all the relevant dimensions. There was a variable response to the question. 22% of candidates failed to say that the UN number had to be in characters at least 12 mm high. With respect to the required label, 36% of candidates failed to mention that the border line must be inset by exactly 5 mm measured from the outer edge of the label to the outer edge of the line. 30.5% then did not tell me that the border line had to be at least 2 mm wide.

14% of candidates informed me that the double-arrow orientation mark was needed. Not so because the substance in the question was a solid. It is not always the case that this mark is required on combination packagings, trainers please note.

Q4 In this question candidates were asked why a UN certified jerrican should not be used for a particular dangerous good. Most recognised correctly that the code contained a “Z” indicating that its use was restricted to dangerous goods of Packing Group III whereas the substance belonged to Packing Group II and should have at least a “Y” in the certification code. However, not so many found the second reason i.e. that use of the packaging was forbidden as it was more than five years old and fell foul of the rule at 4.1.1.15 of Chapter 4.1 of the ADR that plastics packagings should not be used for the transport of dangerous goods if more than five years old. A noteworthy 47% of candidates did not get that answer. I ask trainers to emphasis this important rule about the permitted length of time plastics packagings, the bottles of composite IBCs etc. to ensure their trainees are fully informed about 4.1.1.15 of Chapter 4.1 as there is no real prompt or clue to the existence of this rules. This is an important rule for the transport of dangerous goods as plastics packagings *may* become brittle over time especially if exposed to sunlight. Candidates have just got to know it.

Q5 This question concerned the correct danger marking and labelling of boxes of Class 1.4G fireworks and then as assembled on a pallet under the cover of a black plastic film. In the first part, candidates were required to work out that additional marking requirements are imposed on dangerous goods of Class 1 in the Chapter 5.2 of ADR i.e. that these packages of dangerous goods must be marked with the Proper Shipping Name (PSN). Moreover, the PSN had to be marked in the language of the forwarding country and, if not already one of the three official languages of the ADR, in English, French or German as well. Most worked out that the PSN was required but did not name the language of the forwarding country – Latvian – which I consider is an obvious part of the answer if questions like this are to be answered fully. No less than 72% of candidates did not actually name this language. 16% also forgot to tell me about the other language requirement – one or other of the three official ADR languages. Remember, I wish candidates to apply the rules and not just copy them from the books, and to be fulsome in their answers. Candidates as in other questions were asked to “explain your answer as fully as you can”. A part

of this objective was actually to state the languages which would be required.

In the second part, candidates were firstly required to state that the pallet of boxes had been formed into an overpack. Most did this. Several candidates told me that the UN number should be marked on the overpack. I did wonder why as the question stated that this detail had already been affixed to the black film.

Most realised that the label was missing and that the word “overpack” needed to be marked on the overpack. Where many fell down was in not informing me about the languages requirements for the word “overpack”. No less than 80.5% of candidates fell into this trap. Yet again this was a question where candidates were invited to answer it as fully as they could.

A similar 80.5% of candidates did not inform me that the Proper Shipping Name (PSN) was required on the overpack. This is not so. Sure, it is required on the package itself but if Chapter 5.1 is read carefully in conjunction with Chapter 5.2, it can be deduced that this marking is not actually required on an overpack.

Q6 This question in two parts concerned Class 7 radioactive material requirements. A definition used in the classification of these materials had firstly to be found. It presented little or no difficulty for most candidates. The second part required candidates to retrieve a detail from the table in 2.2.7.2.2.1. It, too, presented most candidates with little difficulty. One or two could not do this and a few more read from the wrong box in the table.

It would have been good if those who did not quote the unit of measurement, i.e. Bq/g for the solution to the second part had been stated though they were not penalised because of this omission.

Q7 Most candidates could provide the answer to question seven which concerned additional details to be inscribed on the ADR transport document for a temperature controlled organic peroxide, i.e. the control and emergency temperatures. One or two tried to give me the normal details to be inscribed e.g. UN number, class, consignor address etc. which were not the details required to answer the question. The question clearly stated that I wanted the *additional* details to be put on the document.

Q8 This final question concerned the regulations applicable during the transport of dangerous goods by air. Most gave the correct answer i.e. the ICAO Technical Instructions (ICAO TIs). A few said the IMDG Code or the ICAO Technical Instructions as if I should choose which one which I care not to do. I wanted just the ICAO TIs. One candidate even thought that it was the ADR which applied.

**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.