

Examiner's Report

Qualifications Framework

Stage 2: Unit 4 Weights and Measures Written Examiner's Report November 2025

General

It was good to see that all 10 candidates passed this year although it is interesting to note that there is still a very wide range of results. The examiner noticed that in some instances candidates had shown a lower level of knowledge which was reflected in their final mark. Weights and Measures is an area requiring ongoing learning to ensure a good grasp and understanding of this subject. Some candidates were exceptional. Legal metrology is a practical subject and can only be really understood when theoretical knowledge is combined with practical experience which is clearly not happening in some authorities. The landscape for the candidates for the S73 Weights and Measures exam will be subject to further pressures as we see candidates from the level six apprenticeship taking the examination alongside those that have undertaken the qualification framework (QF) through CTSI

There are three points to note from this year's examination.

- 1) The examiner is looking for, in addition to demonstrating a good level of understanding of the specifics of what the question is focusing on, but also key phrases and specific terms.
- 2) There is a clear difference between the candidates that have worked very hard to understand the subject and those who have not been able to devote sufficient time to the exam.
- 3) There is a clear knowledge gap regarding the supply of goods and instruments between Northern Ireland and Great Britain. This exam applies to the United Kingdom and candidates must understand the implications of the different legislative frameworks that now exist between the different parts of the country.

Section A

Q1 This question was testing the understanding of the WELMEC Guides that relate to software used in weighing and measuring instruments. The role of software in legal metrology is increasingly significant, and candidates must have a good understanding of this. The candidates that had read and understood the guides scored very well.

Q2 There are invariably questions testing the candidate's knowledge of Part 1 of the Weights and Measures Act and the subsidiary requirements under this section. Most candidates answered this question well and had a good knowledge of this. An understanding of the hierarchy of standards is fundamental in understanding weights and measures law, and candidates must understand both the technical and legislative requirements.

Q3 This question was testing the candidates understanding of the Voluntary Modular Approach (WELMEC 8.8) and specifically the compatibility of modules. This is important and candidates must understand this and all other aspects of the modular approach. Some candidates had, and others clearly had not. It will inevitably feature in the various elements of the S73 exam.

Q4 Variations of this question have appeared before. Candidates will need to know about all of the different types of automatic weighing instruments and specifically they will need a detailed understanding of the requirements of OIML R51.

Q5 This question is very similar to the previous one and the spread of marks was broadly similar. If candidates had done the work in the context of automatic weighing instruments they scored highly.

Q6 This question was testing if candidates understood the various definitions in EN45501 that relate to display and indicators. Questions regarding these differences have appeared before and will invariably appear again. The terminology section of EN45501 contains a wide range of important definitions that the candidate must be familiar with.

Section B

The questions in Section B are 35-mark questions and the level of detail should reflect this. Some candidates did not offer sufficient detail to maximize their marks.

Q7

(a) This question was testing if candidates understood the significance of conformity assessment and regulated instruments. Most candidates understood this at a basic level but did not understand the implications.

(b) This was testing if the candidates understood the various conformity assessment modules available under the NAWIR, in particular the role of module F that some local authorities may have. The marks in this section were poor and reflected a misunderstanding of the different conformity assessment modules.

(c) This question was testing if candidates understood the relationship between the UKCA mark, the CE mark and the implications of this. Most candidates did not understand this relationship and that simply over sticking the CE mark may be a solution to this problem outlined in the question.

(d) There is invariably a question testing a candidate's knowledge of the details of conformity assessment of a non-automatic weighing instrument. Candidates must have a detailed understanding of this. Those that did have a good knowledge scored very well

Q8

(a) The question was an easy question testing if the candidate knew the Packers Rules. Knowledge of these are fundamental to an understanding of the Packaged Goods Regulations.

- (b) This question was testing whether candidates could read and interpret the table in the Packaged Goods Regulations with regard to the acceptance and rejection criteria. Understanding these tables is very important and this question was testing if the candidate could use this table in a practical sense.
- (c) This question was testing if the candidate knew the requirements to distinguish a variable tare from a constant tare. More detail was required by candidates with regard to this question.
- (d) This question related to Regulation 9 of the Packaged Goods Regulations. It was testing if the candidates understood this regulation and its implications. It was necessary to refer in the answer to the records demonstrating that the packaging system was sufficiently rigorous and controlled both the mean and the standard deviation of the packing process.
- (e) This question tested if the candidates knew the requirements with regard to inner and outer packages. Most candidates scored well with this question.

Q9

- (a) This question was testing if candidates understood the relationship between Schedule 3 of the Weights and Measures Act (and the MIR) with regard to the capacity serving measures (CSM's) and the quantities in which it was possible to sell beer and cider. Scores varied with this question.
- (b) This question was testing if candidates understood the essential requirements for CSM's and the relationship with the normative document. Specifically, it was asking to make a judgement on whether the CSM in this scenario was misleading.
- (c) This was a similar question to 9(a) and tested if the candidate understood the relationship between the CSM's and the selling of intoxicating liquor.
- (d) This was an easy question and asked the candidate to explain the legislation relating to the supply of the four controlled spirits. Most candidates had researched this and scored well.
- (e) A simple question asking candidates to list the markings you would expect to see on an intoxicating liquor measuring instrument. It was surprising how many candidates did not know these despite them being perhaps the most well known measuring instruments we see.
- (f) This was testing if candidates knew the difference between the old UK approvals documents and the more recent EU/UK approvals. Disappointingly some of the marks were very low.

Q10

- (a) This question was testing if candidates understood the significance of conformity assessment and regulated instruments. Most candidates understood this at a basic level but did not understand the implications.

(b) This question tested if the candidate understood the fundamentals of the operation of a liquid fuel measuring instrument. Most candidates had revised this and scored well. It is very important that candidates have a good understanding of the operation of all the weights and measure equipment they are responsible for enforcing.

(c) This a more detailed question testing the depth of understanding of specific components of a petrol pump. Candidates should have the requisite level of knowledge with regard to the components of all weighing and measuring instruments, not just petrol

(d) This was a question whether candidates knew the procedures involved in verifying a petrol pump. This a core process of weights and measures enforcement and candidates should know how to carry out this in detail. Most candidates scored well.