



Chief examiner's report

**T Level Technical Qualification in
Healthcare Science (Level 3)
(603/7083/X)**

Summer 2023 – Core A and B

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Assessment dates: **Core A – 14 June 2023**

Core B – 21 June 2023

Paper number: **P001957**

P001963

This report contains information in relation to the externally assessed core sub-component provided by the chief examiner, with an emphasis on the standard of student work within this assessment.

The report is written for providers, with the aim of highlighting how students have performed generally, as well as any areas where further development or guidance may be required to support preparation for future opportunities.

Key points:

- grade boundaries
- standard of student work
- responses to the external assessment questions
- administering the external assessment

It is important to note that students should not sit the core exam until they have received the relevant teaching of the qualification in relation to this sub-component, and that both papers must be taken in any given series that a student sits the core exam.

Grade boundaries

Raw mark grade boundaries for the series are:

	Overall	Notional boundaries	
		Paper A P001957	Paper B P001963
Max	234	122	122
A*	189	96	92
A	166	83	83
B	143	71	71
C	120	59	59
D	97	48	48
E	74	37	37

Grade boundaries are the lowest mark with which a grade is achieved.

Students receive a grade for the core exam sub-component as a whole, and although there are no official grades for the individual assessments in the core exam, it can be useful for students and teachers to see how the core exam grade was achieved. The grade boundaries given for each assessment are known as 'notional grade boundaries', as they are for illustrative purposes only. For further information on notional grade boundaries, please see our guide T Levels: Notional boundaries for the Core Exam assessments available on the qualification page of our NCFE website.

For further detail on how raw marks are converted to uniform marks (UMS), and the aggregation of the core component, please refer to the qualification specification.

Standard of student work

The overall approach taken by students to the questions lacked detail. It appears that on occasion questions had not been clearly read and/or analysed before providing an appropriate response.

Responses to the external assessment questions

Core paper A

Section A: The roles and responsibilities within healthcare science

These questions informed a wide range of marks, indicating that some students found these questions harder to answer compared to others. Question 6 (9 marks and 3 marks for quality of written communication (QWC)), based on 'patient capacity', indicated a greater proportion of students responded to this question correctly. The lack of ability to pick up single/double marks was evident for the questions below.

Question 1 (a) and (b): The students did not secure all marks due to a basic understanding of employment contracts and 'reasons' had not been clearly expressed when considering a 'full performance review', which will require improved revision techniques.

Question 2 (a): The students did not secure all the marks due to a lack of understanding and the identification of the 'professional code of conduct', considering the 6 key points had not been clearly demonstrated, which require improved reading and revision techniques.

Question 4: The students did not secure all marks due to a basic of understanding and explanation of the purpose of the DBS'. The key points had not been clearly demonstrated, which required an improved explanation of the importance of a DBS.

Section B: Personal and patient safety

These questions informed a wide range of marks, indicating that some students answered these questions with a good level of ability and understanding. Question 12 (9 marks and 3 marks for QWC), based on 'clinical laboratory', indicated a greater proportion of students responded to this question correctly. The lack of ability to pick up single/double marks was evident for the question below. Question 7 (a), (b) and (c): The students did not secure consistency of marks in their responses to the Health and Safety Executive (H&SE) 5 Steps to Risk Assessment questions.

This will require an improved explanation of risk assessments to show a significant understanding of response and detail. It is evident that further development work is required by the students.

Section C: Data handling and confidentiality

These questions informed a wide range of marks, indicating that some students answered these questions with a good level of ability and understanding. Question 21 (9 marks and 3 marks for QWC), based on the 'radiology department', indicated a greater proportion of students responded to this question correctly. The lack of ability to pick up single/double marks was evident for the question below.

Question 13 (a): The students did not secure consistency of marks in their responses to the regulation 'sensitive data must apply'. The students need to emphasise the correct wording or acronym of the regulation, which must include the correct date. This will require further explanation of the importance of regulations to show an improved understanding of response and appropriate detail.

Section D: Regulatory and professional framework

These questions informed a wide range of marks, indicating that some students answered these questions with a good level of ability and understanding. Question 17 (9 marks and 3 marks for QWC), based on the 'equipment calibration and quality testing services', indicated a greater proportion of students responded to this question correctly. The lack of ability to pick up a range of marks was evident for the question below.

Question 20 (a) and (b): The students did not secure a consistent range of marks in their responses to this question, based on 'medical equipment'. The students would benefit from an improved understanding and interpretation of 'stating the action' and the 'evaluation of statements'.

Core paper B

Section A: Biology

These questions informed a wide range of marks, indicating that some students found these questions harder to answer or very difficult compared to others. Question 4 (6 marks), based on 'Virus X'; Question 6 (6 marks), based on 'investigations related to smoking'; and Question 7 (9 marks and 3 marks for QWC), based on '3 different types of microscopes', indicated a greater proportion of students responded to these questions correctly. The ability to pick up single/double marks or up to 6 marks was not clear within the following questions.

Question 1 (a): The students did not secure consistency of marks in their responses to the diagram of the human male reproductive organs, based on the identification of the labelled structures A, C and E. Further work is required on revision skills to ensure an appropriate response to the identification of such structures.

Question 1 (b): The students did not secure a consistency of marks in their responses to this question, based on naming the structure 'bladder' and the 'effects of reduction in ADH'. Further work is required on the understanding of the subject and revision skills, to ensure an appropriate response to the identification of structures and the physiological response of the urinary system.

Question 1 (c): The students did not secure a consistency of marks in their responses to this question, based on the named structure and the 'effects of temperature'. Further work is required on the understanding of the subject and on revision skills, to ensure an appropriate response to the identification of structures and the physiological response of the human male reproductive system.

Question 2 (a), (b) and (c): The students did not secure consistency of marks, or in a few circumstances no marks were awarded, in their responses to all 3 parts of the question, which are explicitly linked to a 'spirometry reading'. Further work is required on interpretation skills of a volume flow rate against a time graph and revision skills, to ensure an appropriate response to this requirement in linking the physiology of the respiratory system.

Question 5 (a): The students did not secure a consistency of marks in their responses to this question, based on the 'information about various diseases' and contributing factors. Further work is required on revision skills to ensure the correct identification of a contributing factor.

Question 5 (b): The students did not secure a consistency of marks in their responses to this question, based on the basic definition of the term 'epidemiology'. Further work is required on revision skills to ensure an appropriate response in recalling the definition.

Question 5 (c): The students did not secure a consistency of marks in their response to this question, based on the 'influencing factors in the epidemiology of disease'. Further work is required on revision skills to ensure an appropriate response to recognise, and name, a range of influencing factors.

Question 5 (d): The students did not secure a consistency of marks in their responses to this question and the ability to evaluate table 1 'information about various diseases'. Further work is required on the evaluation of the data and revision skills to ensure an appropriate depth of knowledge and understanding disease.

Section B: Physics

These questions informed a wide range of marks, indicating that students performed at a greater proportion of responses to questions 6 to 13. Students' ability to pick up single/double marks or up to 6 marks was evident within this section with good outcomes. Question 14 (9 marks and 3 marks for QWC), based on the 'radio system', indicated a greater proportion of students responded to this question correctly.

Section C: Chemistry

These questions informed a wide range of marks, indicating that students performed at a greater proportion of responses to questions 15 to 17. Students' ability to pick up single/double marks was evident within this section with good outcomes. Question 18 (9 marks and 3 marks for QWC), based on a new 'pharmaceutical compound', indicated a greater proportion of students responded to this question correctly.

Section D: Biology, chemistry and physics

Question 19 (9 marks and 3 marks for QWC), based on a 'patient with a family history of bowel cancer', indicated a greater proportion of students responded to this question correctly.

Administering the external assessment

The external assessment is invigilated and must be conducted in line with our [Regulations for the Conduct of External Assessment](#).

Students must be given the resources to complete the assessment, and these are highlighted within the [Qualification Specific Instructions for Delivery](#) (QSID).