



HM Government

T-LEVELS

Chief Examiner Report

**T Level Technical Qualification
in Healthcare Science
QN: 603/7083/X**

**Autumn 2025 – Core Paper A and Core
Paper B**

Introduction

Autumn 2025 – Core Paper A and Core Paper B

Assessment dates: Core Paper A 3 December 2025
Core Paper B 10 December 2025

Paper numbers: Core Paper A P002999 (paper-based)
Core Paper B P003000 (paper-based)

This report contains information in relation to the externally assessed 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 examinations until they have received the relevant teaching of the qualification in relation to this component, and that both papers must be taken in any given series that a student sits the core examinations.

Grade boundaries

Raw mark grade boundaries for the series are:

	Overall	Notional boundaries	
		Paper A	Paper B
Max	234	122	112
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 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 (Paper 1 and Paper 2) available on the qualification page on the NCFE website.

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

Administering the external assessment

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

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

Standard of student work

Students performed well this series, demonstrating confidence in their approach to questions. Most students attempted all questions in their paper, although there were some examples where it appeared poor time management had led to some of the extended-response questions being left blank. Providers would be advised to continue to support students with managing their time better to ensure they can fully demonstrate their knowledge, skills and understanding across the entire paper.

Providers should ensure that additional paper is readily available for students, as many were cramming their work into the available space on the question paper which may have added undue pressure on students during their assessments.

Responses to the external assessment questions

Core Paper A

Section A: the roles and responsibilities within healthcare science

Overall, students performed well across this section. Below is feedback on some specific questions.

Question 1: this question regarding the NHS core values (6Cs) was answered demonstrating sound knowledge of these key values.

Question 3: students provided examples of regulated occupations or occupations outside of the health and social care sector and therefore struggled to gain full marks in this question.

Question 4: students who read the question carefully were able to gain full marks and confidently linked the inclement weather directly with the impact on the A&E department.

Question 9: students performed well on this question. They were able to consider a variety of relevant ways in which the GP could utilise Making Every Contact Count (MECC) during the appointment. Their answers demonstrated a thoughtful approach that sought to support both mother and child.

Question 10: students struggled to understand how delaying the renewal of the General Optical Council (GOC) registration would impact the dispensing optician. Many students considered this to be a statutory duty and their answers failed to gain marks.

Question 11 (9 marks and 3 marks for quality of written communication (QWC)): although many students achieved good marks in this question, many were unable to comprehensively evaluate the statement,

thereby failing to achieve marks in the highest mark band. Providers may benefit from supporting their students to develop their ability to answer evaluation-style questions.

Section B: personal and patient safety

Overall, students performed fairly across this section. Below is feedback on some specific questions.

Question 12: it was excellent to see that students were able demonstrate a sound understanding of using personal protective equipment (PPE).

Question 14: there was a gap in student knowledge in this question as students struggled to state two correct functions of the Serious Hazards of Transfusion (SHOT) haemovigilance scheme.

Question 16: not all students focused on the 'impact of applying the audit feedback' instead focusing on the more general work of the Resuscitation Council UK. This resulted in students often failing to gain the maximum marks available to them.

Question 17: most students successfully identified the role of the Medicines and Healthcare products Regulatory Agency (MHRA); however were unable to fully use this to develop their argument in discussing the validity of the manager's statement.

Section C: data handling and confidentiality

More students struggled in this section. Below is feedback on some specific questions.

Question 22: students were able to appropriately consider the consequences of the scientist's actions, especially as they were able to demonstrate their understanding of UK GDPR.

Question 23: students were generally able to achieve over half of the marks available in this question by thoughtfully considering appropriate reasons why the nurse practitioner should escalate the A&E patient interaction.

Question 24: there was some misunderstanding around the use of Statistical Analysis System (SAS) for data interpretation which meant that students were often not able to access full marks for this question.

Section D: regulatory and professional framework

Overall, students performed fairly across this section. Below is feedback on some specific questions.

Question 27: students frequently failed to mention the accreditation aspect of missing the calibration of the incubator.

Question 29: generally, students demonstrated a fair to good evaluation of the laboratory manager's statement. This was possibly due to familiarity with the scenario described within the question from their own learning and / or experience on placements.

Core Paper B

Section A: biology

Overall, students performed strongly in this section. Below is feedback on some specific questions.

Question 1: there were several examples of students who had confused the first law of thermodynamics with the principles of cell theory.

Question 2 (b): this question was well answered demonstrating that providers have supported their students well in developing their understanding of calculating percentage change and the manipulation of graphical data.

Question 3 (a): generally poorly answered by students who found it hard to recall the correct bond name.

Question 3 (c): students struggled to gain both available marks as they were unable to adequately explain how the combining of two RNA nucleotides resulted in a reduction in mass.

Question 4: in general, this question was very well understood by students, many of whom gained maximum marks available. This was possibly due to student familiarity with questions requiring them to calculate magnification of cells and providers supporting students in practicing this style of question.

Question 5 (b): students struggled to achieve the second mark point of this question where they needed to link the (development of) cloudiness with a reduction of light reaching the retina and therefore the formation of an image.

Question 6 (b): students struggled to access the maximum marks available for this question by failing to correctly attend to 'why kidney failure could be fatal if not treated.' Providers may look to support their students to develop their ability to 'include reasoned judgements and a conclusion.'

Question 7 (a): as this was an AO1 question, it was necessary for students to identify that the genome contains both coding and non-coding regions of the DNA and most students were unable to do this correctly, therefore failing to gain the available mark.

Question 8: students were able to apply their knowledge extremely well in this question, with some excellent and thoughtful responses. This was due to their ability to apply their knowledge of limiting the spread of infectious disease in an older population with their own understanding of the utilisation of social media to support in this process.

Question 9: some students demonstrated confusion with exactly how RNA vaccines worked and this was evident in their explanations.

Section B: physics

Overall, students performed fairly well in this section. Below is feedback on some specific questions.

Question 1: there were examples of students incorrectly providing the method to calculate the total resistance of multiple fixed resistors in a parallel circuit. However, where the learner recalled the correct method, they were able to gain the mark.

Question 11 (a): generally, it appeared that many students did not recall the SI unit to measure luminous intensity.

Question 14: in general, this question was very well understood by students, many of whom gained maximum marks available. This was possibly due to student familiarity with questions requiring them to calculate wavelength.

Question 15: many students were unable to consider the validity of using carbon dating to determine the length of time a body had been deceased unless they were considerably older remains. Therefore, they were unable to access the full range of marks available.

Question 16: students attempted to think logically about the use of small magnets in a catheter, but many struggled with accessing full marks using the correct application of knowledge of magnetism.

Question 17 (9 marks and 3 marks for quality of written communication (QWC)): student answers demonstrated a sound understanding of the principles of radioactivity. Many responses however struggled with the AO3 part of the question, 'evaluation of the validity of the suggestion'. Providers should continue to support their students in developing their ability to evaluate which requires students to move from memory-based / recall learning to critical thinking.

Section C: chemistry

Overall, students performed well in this section. Below is feedback on some specific questions.

Question 18: students frequently referred to 'different materials combining together' but were not always able to refer to these different materials having different properties.

Question 19: many students were confused with the bar chart showing the dissociation of hydrochloric acid in aqueous solution. They were unable to link their understanding about the behaviour of strong acids in aqueous solution with the legends of the bars on the graph.

Question 20 (a): most students were able to correctly explain that compound C had the highest affinity for the stationary phase. Although there were instances where students inaccurately identified compound E as the compound which took the longest time to pass through the column. This could have been due to rushing the question and not carefully reading all the retention time values given.

Question 20 (b): most students were able to consider that as compound B did not have precisely the same retention time as the testosterone sample, this could mean that they are different substances with a similar affinity for the stationary column. Very few students however considered the impact of naturally occurring testosterone in a male urine sample on the results. Stronger students were also able to consider how a method such as mass spectroscopy would be useful to quantify the testosterone in the urine.

Question 21 (9 marks and 3 marks for quality of written communication (QWC)): learners were able to use their knowledge about materials and link it to their understanding of the function of the heart and the use of artificial pacemakers. There were instances of students who did not accurately recall the definition of ductility and why it was an important consideration in pacemakers. However, almost all students were able to confidently consider how the properties of the reactivity of oxygen and water and electrical conductivity were important. There were examples of students who conflated cheap with poor quality. Where cost was mentioned by students, it was infrequently linked to the cost-saving benefits if large quantities of wire would be required if the pacemakers are being mass-produced. There were examples of students choosing not to consider one of the properties or one of the materials in their evaluation. Providers may wish to remind their students to consider all the materials and properties in their judgements and conclusions, to maximise their ability to gain marks.

Section D: biology, chemistry and physics

Question 22: in this extended-response question, many students were unable to access the highest mark band; this was frequently due to a lack of depth in their answers, especially the AO3 evaluation part. Students did perform well with AO2 application of knowledge and understanding of the structure and properties of materials, such as transition metals. Students were able to provide some excellent examples of the impact on longer-term patient outcomes of the breaking load strength of the different materials. However, they did not fully demonstrate their understanding of how the immune system of the patient would be compromised or impacted depending upon the different material used for the femur transplant.

Document information

Copyright in this document belongs to, and is used under licence from, the Department for Education, © 2026.

‘T-LEVELS’ and ‘T Level’ are registered trade marks of the Department for Education.

NCFE is authorised by the Department for Education to develop and deliver this T Level Technical Qualification.

‘NCFE CACHE’ is a registered trade mark of NCFE.