

1145-520 Level 2 Engineering – Theory Exam

March 2023

Examiner Report

Contents

Introduction.....	3
Theory Exam – March 2023	4
Grade Boundaries and distribution.....	4
Chief Examiner Commentary.....	5

Introduction

This document has been prepared by the Chief Examiner, it is designed to be used as a feedback tool for centres to use in order to enhance teaching and preparation for assessment. It is advised that this document be referred to when preparing to teach and then again when candidates are preparing to sit examinations for City & Guilds Technical qualifications.

This report provides general commentary on candidate performance and highlights common themes in relation to the technical aspects explored within the assessment, giving areas of strengths and weakness demonstrated by the cohort of candidates who sat the **March 2023** examination series. It will explain aspects which caused difficulty and potentially why the difficulties arose, whether it was caused by a lack of knowledge, incorrect examination technique or responses that failed to demonstrate the required depth of understanding.

The document provides commentary on the following assessment;

1145-520 Level 2 Certificate in Engineering – Theory Exam

Theory Exam – March 2023

Grade Boundaries and distribution

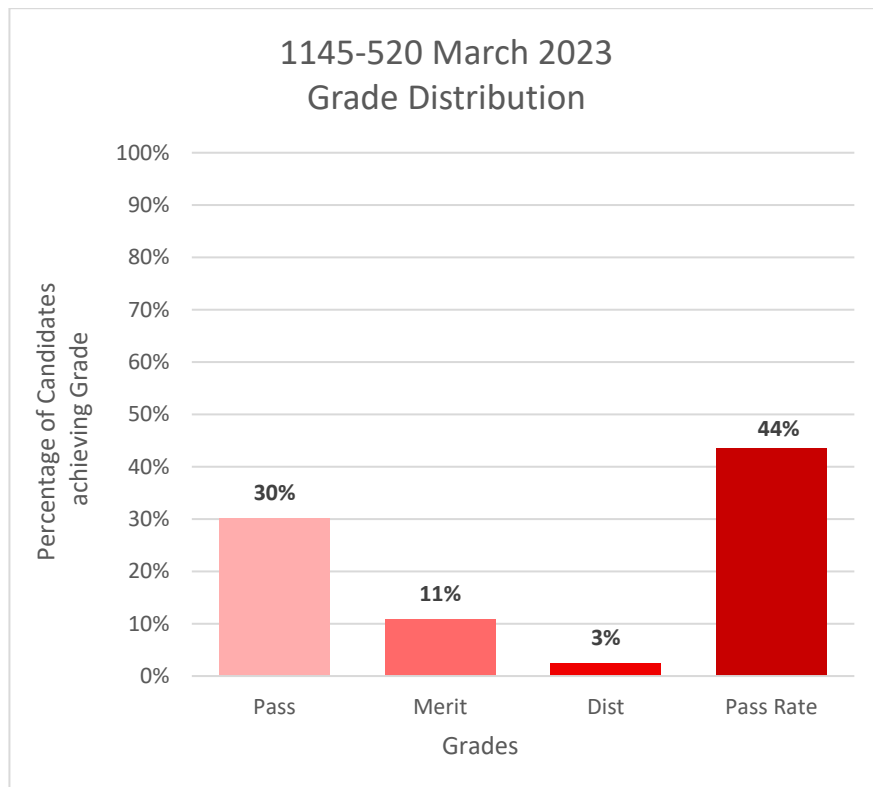
Assessment: **1145-520**

Series: **March 2023**

Below identifies the final grade boundaries for this assessment, as agreed by the awarding panel:

Total marks available	60
Pass mark	22
Merit mark	31
Distinction mark	41

The graph below shows the approximate distribution of grades and pass rates for this assessment:



Chief Examiner Commentary

General Comments on Candidate Performance

Assessment component: 1145-520

The paper as a whole and the individual questions met the requirements of the specification and were pitched appropriately for this level. The paper was comparable with the previous series in terms of the number of questions assessing knowledge recall, understanding and extended responses. There was a mixed response to this paper, with some areas of strength but many areas of weakness demonstrated throughout the cohort. Cohort performance showed a decline in achievement rate compared to previous series.

Candidates generally performed well in questions relating to some aspects of health and safety, tolerances, selection of materials, types of communication and calculation of area. Candidates performed slightly better in areas such as the fundamental Maths concept of Pi, Engineering equipment and electrical component identification.

Areas where there were significant and consistent weaknesses shown included drawing symbol recognition, business improvement techniques, heat treatment processes, scientific definitions and unit conversions.

There was a mixed response to questions assessing basic knowledge recall (AO1). In questions assessing further understanding (AO2) candidates sometimes gave basic points of knowledge, but often did not extend these sufficiently to score the higher marks. In the question covering named materials, most candidates were able to select an appropriate material for the application and give valid reasons, but a significant number did not attempt the manufacturing part of the question or listed inappropriate production methods.

Maths questions were generally not answered well, although most candidates did score well on the question which required them to calculate the area of a shape. A number of candidates lost marks due to not showing all of their working, despite this being specifically asked for in each question. Candidates should be reminded to show all working, to ensure they can gain the maximum marks.

Candidates often struggled to recall basic technical facts, such as the meaning of Geometric Dimensioning and Tolerancing (GDT) and electrical symbols. Questions on GDT and electrical symbols have been asked in previous series and relate to fundamental Engineering knowledge. Another area of weakness was in the application of basic tools, which continued a similar trend from the last series. Candidates should be given access to all tools and equipment types, to ensure they can identify them and understand their applications.

The extended response question produced a good spread of responses and acted as the main differentiator for the paper, although these were generally skewed more towards the lower and middle, rather than the higher band. Some candidates misinterpreted the question, giving unrelated general points about production processes instead of addressing the specific question asked. Most candidates would have benefitted from moving beyond a list of basic points and adding more discussion surrounding the relative impact of different factors in their responses.

Candidates will benefit from providing answers which go beyond basic listing points and go into greater depth for AO2 questions. Candidates need to carefully read the question and what is being asked of them and ensure that the answers they are providing are specifically relevant to the question. On maths questions, candidates should ensure that they show all of their workings, in order to access full marks.

Centres are reminded of the City & Guilds Technicals 'Exam Guides' available here
[Technicals in Engineering qualifications and training courses | City & Guilds \(cityandguilds.com\)](https://www.cityandguilds.com/Technical-Engineering)