1145-502 Level 2 Engineering – Theory exam

March 2020

Examiner Report
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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 2020 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;

1145-502 Level 2 Engineering – Theory exam
Theory Exam – March 2020

Grade Boundaries and distribution

Assessment: 1145-502  
Series: March 2020

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

<table>
<thead>
<tr>
<th>Total marks available</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Pass mark</td>
<td>26</td>
</tr>
<tr>
<td>Merit mark</td>
<td>41</td>
</tr>
<tr>
<td>Distinction mark</td>
<td>56</td>
</tr>
</tbody>
</table>

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: 1145-502

Series 1 (March 2020)

The paper was comparable with the previous series. The cohort for this paper was very small. It is therefore difficult to draw statistical conclusions regarding candidate performance.

Some candidates showed depth of knowledge of certain topics. Topics that were answered well included some elements of engineering drawings, units of measurement and the use of composite materials and breadboarding.

This paper was not well answered by most candidates, with several common areas of weakness shown throughout. Some candidates showed some breadth of knowledge but there were many gaps as evidenced by questions left un-attempted, or attempted but with basic technical errors present. Particular areas of weakness included the use of electrical wiring in circuits, sources of engineering information, forms of supply of materials and prototyping electronic circuits. Responses generally showed a lack of depth of knowledge and understanding, as evidenced by very few candidates achieving higher band marks for the extended response question (ERQ). In questions that assessed understanding (AO2), candidates frequently gave responses that displayed some basic knowledge, but without the additional explanations or justifications needed to score additional marks.

Most candidates showed some level of relevant knowledge in the ERQ, where they were asked to discuss the uses of computer based technologies. Some candidates also showed some additional depth and/or breadth of understanding by giving a range of advantages and disadvantages with some supporting discussion. Almost all candidates would have benefited from discussing a wide range of advantages and disadvantages in detail.

Candidates should be encouraged to explain and justify their answers where possible. Many candidates know the answers to the questions, but lose out on marks due to a lack of explanation or justification in their answers.

Centres are reminded of the City & Guilds Technicals ‘Exam Guides’ available here https://www.cityandguilds.com/qualifications-and-apprenticeships/engineering/mechanical/1145-technicals-in-engineering#tab=documents