

**071606T4ABT**

**AUTOBODY TECHNOLOGY LEVEL 6**

**ENG/OS/ABT/CR/01/6**

**Design Vehicle Body**

**July/August 2025**



**TVET CURRICULUM DEVELOPMENT, ASSESSMENT AND CERTIFICATION  
COUNCIL (TVET CDACC)**

**PRACTICAL ASSESSMENT**

**INSTRUCTIONS TO ASSESSOR**

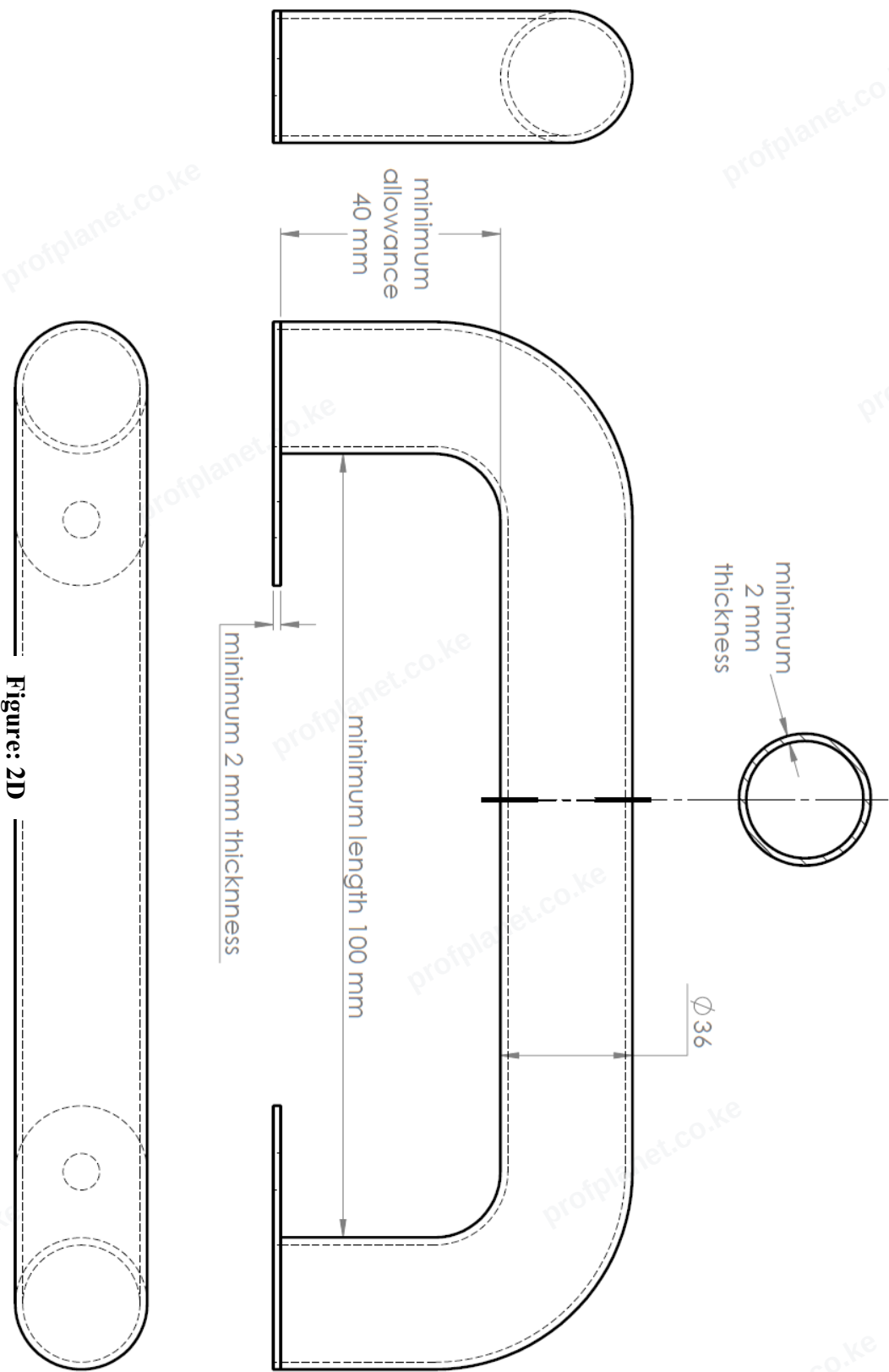
1. Assess the candidate as the practical p observing the critical areas
2. You are required to mark the practical didate perform the tasks
3. You are required to take video clips at critical points
4. Ensure the candidate has a name tag and registration code at the back and front

### PRODUCT CHECKLIST

|                                                                                                                           |                        |                       |                 |
|---------------------------------------------------------------------------------------------------------------------------|------------------------|-----------------------|-----------------|
| <b>Candidate's Name &amp; Registration Code</b>                                                                           |                        |                       |                 |
| <b>Assessor's Name &amp; Registration Code</b>                                                                            |                        |                       |                 |
| <b>Venue of Assessment</b>                                                                                                |                        |                       |                 |
| <b>Date of Assessment</b>                                                                                                 |                        |                       |                 |
| <b>Items to be Evaluated:</b> <i>Please award marks as appropriate. Give a brief comment on your observation.</i>         | <b>Marks Available</b> | <b>Marks Obtained</b> | <b>Comments</b> |
| <b>TASK 1: COMPLETE THE JOB SPECIFICATION SHEET FOR THE PASSENGER SEAT HANDHOLD (APPENDIX 1)</b>                          |                        |                       |                 |
| 1. Handhold diameter specified correctly:<br>• 20-45 mm<br><i>(Award 2 marks or zero)</i>                                 | 2                      |                       |                 |
| 2. Handhold length specified correctly:<br>• Min. 100 mm<br><i>(Award 2 marks or zero)</i>                                | 2                      |                       |                 |
| 3. Height from seat top specified correctly:<br>• Min 40 mm for proper gripping<br><i>(Award 2 marks or zero)</i>         | 2                      |                       |                 |
| 4. Main handhold tube material spec correctly:<br>• Hollow section, min. 2 mm thickness<br><i>(Award 2 marks or zero)</i> | 2                      |                       |                 |
| 5. Mounting method to seat structure specified clearly:<br>• Fasteners (Bolts and nuts)<br><i>(Award 2 marks or zero)</i> | 2                      |                       |                 |
| 6. Job specification sheet fully completed.<br><i>(Award 2 marks)</i>                                                     | 2                      |                       |                 |
| <b>Sub-Total 1</b>                                                                                                        | <b>12</b>              |                       |                 |
| <b>TASK 2: CREATE PRELIMINARY SKETCHES SHOWING FRONT, TOP, END AND SECTION VIEWS OF THE PASSENGER SEAT HANDHOLD.</b>      |                        |                       |                 |
| 7. Front view sketch completed showing handhold<br><i>(Award 2 marks)</i>                                                 | 2                      |                       |                 |
| 8. Side view sketch completed<br><i>(Award 2 marks)</i>                                                                   | 2                      |                       |                 |

|                                                                                                                                                                                                                                   |             |  |  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|--|--|
| 9. Section view sketch completed showing tube diameter and wall thickness<br>(Award 2 marks)                                                                                                                                      | 2           |  |  |
| <b>Sub-Total 2</b>                                                                                                                                                                                                                | <b>6</b>    |  |  |
| <b>TASK 3: PRODUCE 2D WORKING DRAWINGS IN AUTOCAD OF FRONT, TOP, END AND SECTION VIEWS.</b>                                                                                                                                       |             |  |  |
| 10. Front view drawing completed with accurate dimensions and proper scaling<br>(Award 3 marks)                                                                                                                                   | 3           |  |  |
| 11. Top view drawing completed with accurate dimensions and proper scaling<br>(Award 3 marks)                                                                                                                                     | 3           |  |  |
| 12. Side view drawing completed showing proper clearance from seat back<br>(Award 3 marks)                                                                                                                                        | 3           |  |  |
| 13. Section view drawing completed showing:<br><ul style="list-style-type: none"> <li>• Accurate tube diameter (20-45 mm)</li> <li>• Wall thickness (min. 2 mm)</li> <li>• Hatching lines</li> </ul> (Award 2 marks each or zero) | 2<br>2<br>2 |  |  |
| 14. Proper line weights assigned<br>(Award 1 mark)                                                                                                                                                                                | 1           |  |  |
| <b>Sub-Total 3</b>                                                                                                                                                                                                                | <b>16</b>   |  |  |
| <b>TASK 4: CREATE A 3D MODEL IN AUTOCAD OF THE PASSENGER SEAT HANDHOLD.</b>                                                                                                                                                       |             |  |  |
| 15. Main handhold tube modeled with:<br><ul style="list-style-type: none"> <li>• Correct diameter (20-45 mm)</li> <li>• Wall thickness (min. 2 mm)</li> </ul> (Award 3 marks each or zero)                                        | 3<br>3      |  |  |
| 16. Mounting brackets modeled with appropriate dimensions (similar to diameter used)<br>(Award 4 marks or zero)                                                                                                                   | 4           |  |  |
| 17. Clearance from seat top accurately modeled min. 40 mm<br>(Award 4 marks or zero)                                                                                                                                              | 4           |  |  |
| <b>Sub-Total 4</b>                                                                                                                                                                                                                | <b>14</b>   |  |  |

| <b>TASK 5: PRINT 2D WORKING DRAWING, 3D MODEL DESIGN AND DOCUMENT THE COMPLETE DESIGNS.</b>                                                                                                                                                                                        |                           |              |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|--------------|--|
| 18. Drawing files organized with proper file naming and storage<br><ul style="list-style-type: none"> <li>• 2D working drawing</li> <li>• 3D model</li> </ul> <b>(Award 2 marks each)</b>                                                                                          | 2<br>2                    |              |  |
| 19. Printed AutoCAD drawings:<br><ul style="list-style-type: none"> <li>• 2D working drawing</li> <li>• 3D model</li> </ul> <b>(Award 2 marks each)</b>                                                                                                                            | 2<br>2                    |              |  |
| <b>Sub-Total 5</b>                                                                                                                                                                                                                                                                 | <b>8</b>                  |              |  |
| <b>GRAND TOTAL</b>                                                                                                                                                                                                                                                                 | <b>56</b>                 |              |  |
| <b>CANDIDATE SCORE IN %</b>                                                                                                                                                                                                                                                        | $\frac{x}{56} \times 100$ |              |  |
| <b>ASSESS TCOME</b>                                                                                                                                                                                                                                                                |                           |              |  |
| <p>The candidate was found to be:</p> <p style="text-align: center;">Competent <input type="checkbox"/> Not yet Competent <input type="checkbox"/></p> <p><i>(Please tick as appropriate)</i></p> <p><i>(The candidate is competent if the candidate obtains at least 50%)</i></p> |                           |              |  |
| <b>Feedback from the Candidate:</b>                                                                                                                                                                                                                                                |                           |              |  |
| <b>Feedback to the Candidate:</b>                                                                                                                                                                                                                                                  |                           |              |  |
| <b>Candidate Signature</b>                                                                                                                                                                                                                                                         |                           | <b>Date:</b> |  |
| _____                                                                                                                                                                                                                                                                              |                           | _____        |  |
| <b>Assessor's Signature</b>                                                                                                                                                                                                                                                        |                           | <b>Date</b>  |  |
| _____                                                                                                                                                                                                                                                                              |                           | _____        |  |



## SAMPLE JOB SPECIFICATION SHEET

### DIMENSIONS

| Component            | Specification  | Standard Reference      |
|----------------------|----------------|-------------------------|
| Handhold diameter    | 20 mm - 45 mm  | KS 372:2019 Section 5.7 |
| Handhold length      | 100 mm (10 cm) | Section 5.7             |
| Height from seat top | Minimum 40mm   |                         |

### MATERIAL

| Component          | Material Type                       | Size/Thickness         |
|--------------------|-------------------------------------|------------------------|
| Main handhold tube | Rectangular Hollow<br>Section (RHS) | Minimum 2 mm thickness |
| Mounting brackets  | Flat bar                            | Minimum 2 mm thickness |
| Fasteners          | Bolts                               |                        |

### FINISH

| Aspect            | Specification                                          |
|-------------------|--------------------------------------------------------|
| Surface treatment | Painting, anodizing, etc...                            |
| Welding type      | MIG/TIG (Section 5.3.4)                                |
| Edge treatment    | No sharp edges to present risk of injury (Section 5.7) |