

**071506T4MTM**

**MECHANICAL TECHNOLOGY AND MAINTENANCE TECHNICIAN LEVEL 6**

**ENG/OS/ME/CR/1/06**

**Perform Benchwork Operations**

**July/August 2025**



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

### **PRACTICAL ASSESSMENT**

#### **INSTRUCTIONS TO CANDIDATE:**

1. The duration of this practical will be guided by your assessor.
2. You are required to perform the following tasks:
  - i. Produce the component shown on the working drawing as per working diagram.
  - ii. Inspect the finished work and record in the form “**Candidate’s Inspection Checklist for the Finished Work**” provided in **Appendix 1**.

3. You have been provided with the following resources for the tasks:

- Mild steel plate:
  - 35 x 45 x 12
  - 35 x 60 x 12 (2 OFF)
- Mild steel rod:
  - $\varnothing 12$  x 65
  - $\varnothing 12$  x 45
- Complete arc Welding equipment with accessories
- Lathe machine
- Scriber
- Knurling tools
- Try Square
- Wire brush
- Bevel protractor
- Hacksaw
- Bench vice
- Chipping hammer
- Grinding discs
- Welding table
- Leather gloves
- Pair of tongs
- Cutting fluid
- Pair of dividers
- Die and die stock
- Assorted files
- Taps and tap wrench
- Leather Apron

**NOTE:**

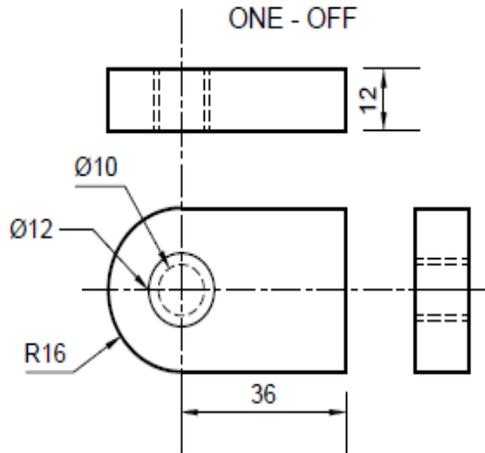
- **All dimensions are in millimeters (mm) unless and otherwise stated.**
- **Tolerance:**
  - ✓ **Diameters  $\pm 0.2$**
  - ✓ **Linear dimensions  $\pm 0.2$**
  - ✓ **All chamfers :45 degrees**

easyvet.com

**WORKING DRAWING.**

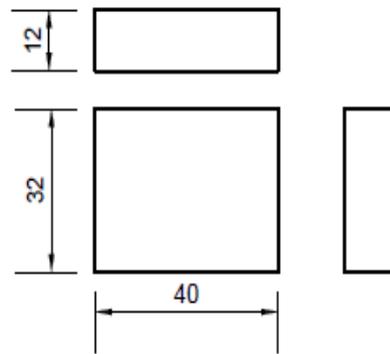
**PART 1: SIDE BLOCK**

ONE - OFF



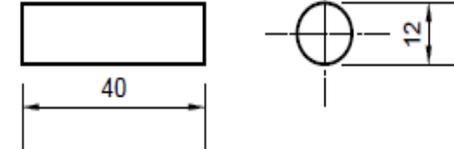
**PART 3: BASE PLATE**

ONE - OFF



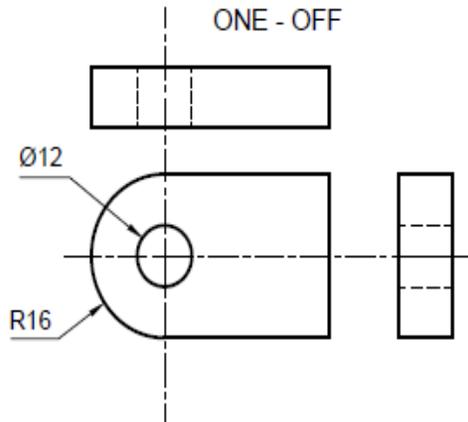
**PART 5: HANGING PIN**

ONE - OFF

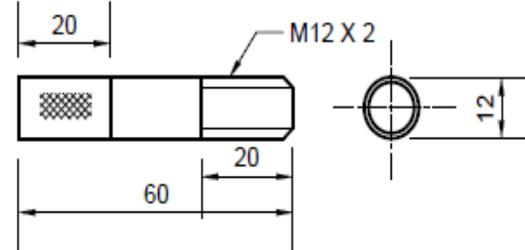


**PART 2: SIDE BLOCK**

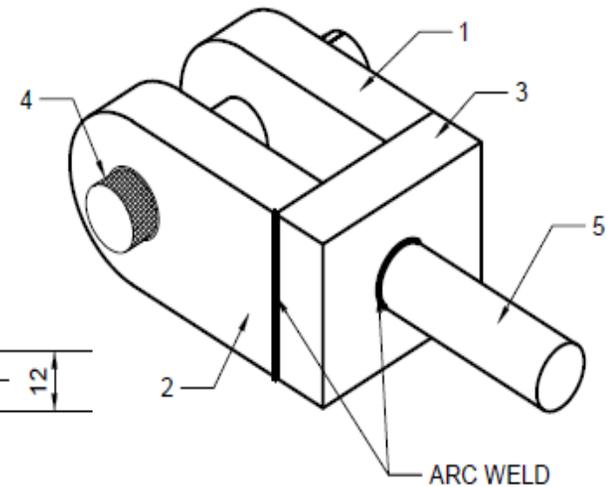
ONE - OFF



**PART 4: HOOKING BOLT/PIN**



**SHACKLE ASSEMBLY**



**APPENDIX 1: Candidates Inspection Checklist for the Finished Work****All dimensions in mm****Task 1: PART 1 and PART 2 (SIDE BLOCK)**

<b>ITEMS</b>	<b>Main dimensions</b>	<b>Measured dimension</b>	<b>deviation</b>	<b>comments</b>
<b>Linear (<math>\pm 0.02</math>)</b>				
1.	$36 \times 4$			
2.	$32 \times 2$			
3.	$12 \times 2$			
<b>Diameter (<math>\pm 0.02</math>)</b>				
4.	$\text{Ø}10 \times 1$			
5.	$\text{Ø}32 \times 2$			
6.	$\text{Ø}12 \times 1$			

**Task 2: PART 3 (BASE PLATE)**

<b>ITEMS</b>	<b>Main dimensions</b>	<b>Measured dimension</b>	<b>deviation</b>	<b>comments</b>
<b>Linear (<math>\pm 0.02</math>)</b>				
1.	$40 \times 1$			
2.	$32 \times 1$			
3.	$12 \times 1$			

**Task 3: PART 4 (HOOKING BOLT)**

ITEMS	Main dimensions	Measured dimension	Deviation	Comments
<b>Linear (<math>\pm 0.02</math>)</b>				
1.	$60 \times 1$			
2.	$20 \times 2$			
<b>Diameter (<math>\pm 0.02</math>)</b>				
7.	$\Theta 12 \times 1$			

**Task 4: PART 5 (HANGING PIN)**

ITEMS	Main dimensions	Measured dimension	Deviation	Comments
<b>Linear (<math>\pm 0.02</math>)</b>				
1.	$40 \times 1$			
<b>Diameter (<math>\pm 0.02</math>)</b>				
7.	$\Theta 12 \times 1$			