

**EXAMINATIONS COUNCIL OF ZAMBIA**

**Examination for School Certificate Ordinary Level**

**Metalwork**

**PAPER 2 Practical Test**

**Wednesday**

**4 NOVEMBER 2015**

**6040/2**

Additional materials  
As listed in instructions to Supervisors

**Time: 3 hours**

**Marks: 100**

### **Instructions to Supervisors**

Using materials prepared prior to the examination, each candidate is to make the **HANDVICE** shown in the working drawings on the insert. Modifications have been made for examination purposes. All dimensions are in millimetres.

The following materials are required in either Bright Drawn Mild Steel (B.D.M.S) or Black Mild Steel (B.M.S):

- 1** One piece  $10 \times 10 \times 80$ mm long. Both ends squared.
- 2** One piece  $10 \times 10 \times 60$ mm. Both ends squared.
- 3** One piece  $\varnothing 12 \times 55$  long, turned as shown in **Figure 1**.
- 4** One piece  $30 \times 3 \times 100$ mm long. One end squared.
- 5** One piece  $\varnothing 6 \times 40$ mm long, turned as shown in **Figure 2**.
- 6** One piece  $\varnothing 6 \times 50$ mm long, as shown in **Figure 3**.
- 7** One clear, clean and strong plastic bag of A4 size in which to enclose the work pieces.
- 8** Two tie-on tags of manila paper, one to be attached to the work and the other to be tied to the plastic bag.

Apart from the usual bench tools, the following also should be supplied:-

- 1** Twist drill bits –  $\varnothing 4$ ,  $\varnothing 5$  and  $\varnothing 6.5$
- 2** Radius gauge – R15
- 3** Taps and dies  $M6 \times 1.0$
- 4.** Needle files

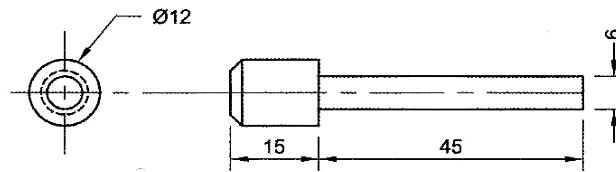


FIGURE 1

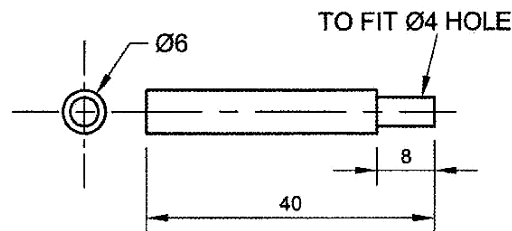


FIGURE 2

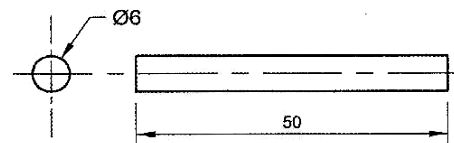


FIGURE 3

### WORKING PROCEDURES

- A** Part 3: To be reduced to a total length of 55mm after making the M6 × 1.0 screw thread.
- B** Part 4: Hide the square hole in the vice when bending to 90°.
- C** Part 5: To centre lathe may be used to turn the spigot of 8mm length.
- D** Part 5: Fit spigot into Ø4 hole in part 2, braze and file flush.
- E** Part 6: Fit into Ø6.5 hole in part 3 before flattening both ends.

### INFORMATION TO CANDIDATES

At the end of the examination, candidates must:

1. Assemble work pieces, where work pieces cannot be assembled, fasten them together using a string.
2. Each tag (60 x 100mm) must have your name in full, examination number, centre number and name of the school.
3. Enclose your work in the plastic bag of A4 size.
4. Fasten the bag and attach a second tag.
5. Hand in your work to the Supervisor (Invigilator).

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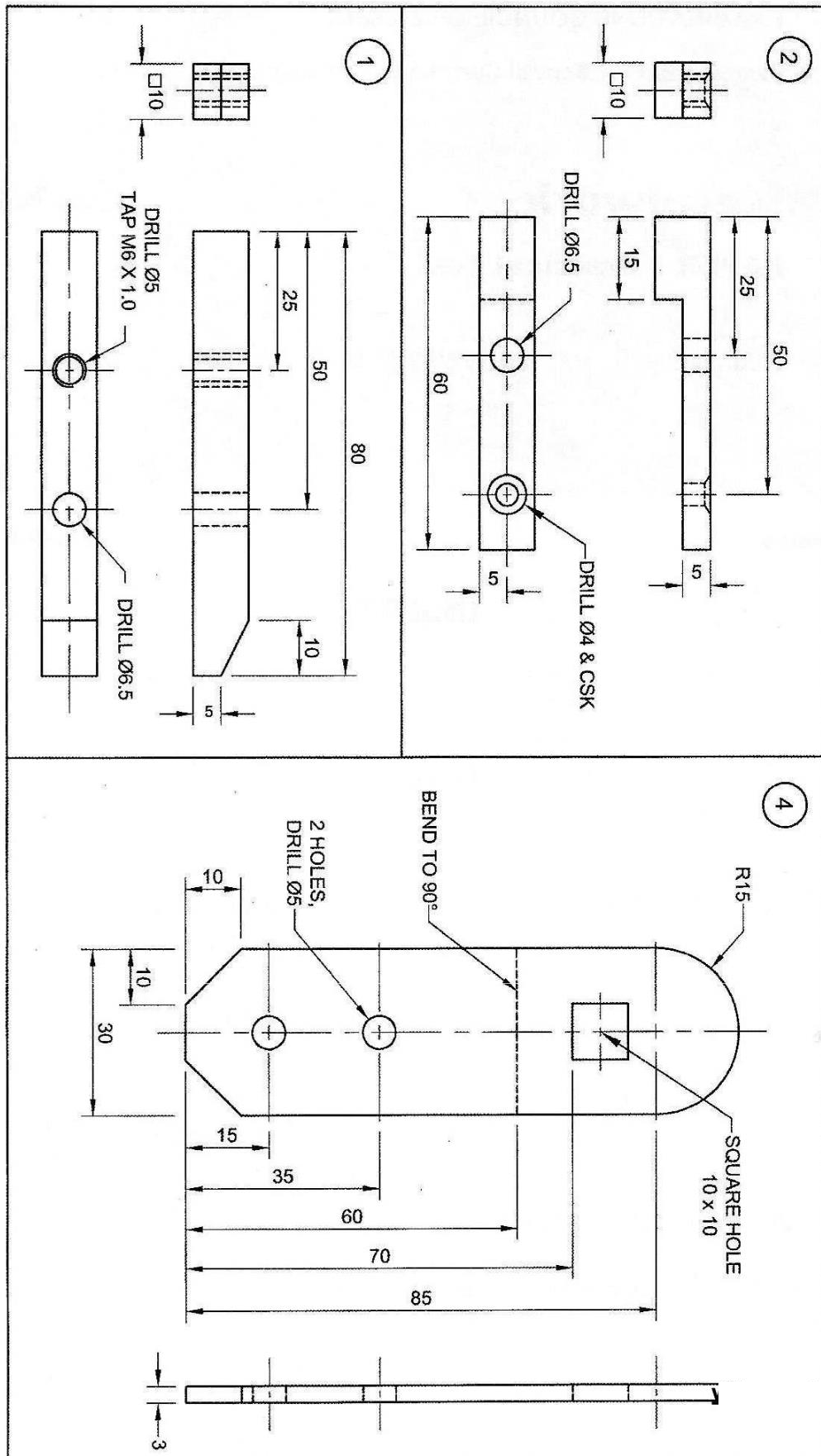
**Wednesday**

**4 NOVEMBER 2015**

**Time: 3 hours**

**MARKS: 100**

**INSERT**



S.C./G.C.E. 'O' LEVEL	OCTOBER, 2015
METALWORK PRACTICAL P2-6040/2	3 HOURS
HAND VICE	
EXAMINATIONS COUNCIL OF ZAMBIA - LUSAKA	