

1503/106

MOTOR VEHICLE TRADE PRACTICE I

June/July 2018

Time: 6 hours



THE KENYA NATIONAL EXAMINATIONS COUNCIL

CRAFT CERTIFICATE IN AUTOMOTIVE ENGINEERING

MODULE I

MOTOR VEHICLE TRADE PRACTICE I

6 hours

INSTRUCTIONS TO CANDIDATES

This paper is to be issued to the candidates on the day of the examination.

Equipment, materials and tools required for this examination will be provided by the centre.

*This paper consists of **FIVE** questions.*

*Answer **ALL** questions as instructed by the examiner.*

*Each candidate is allowed **SIX** hours for this examination spread over **TWO** days.*

Candidates should answer the questions in English.

This paper consists of 4 printed pages.

Candidates should check the question paper to ascertain that all the pages are printed as indicated and that no questions are missing.

1. Replace the wheel cylinder seals and shoes for the brake, on the vehicle provided. Adjust and bleed the braking system. (1 $\frac{1}{2}$ hours)

Tools, materials and equipment required:

- Complete vehicle
- Workshop tools
- Cleaning materials
- Brake shoes
- Brake fluid
- New wheel cylinder seals
- Bleeding equipment

2. Prepare the dent on the panel of the vehicle provided and spray paint it to the original colour. (1 $\frac{1}{2}$ hours)

Tools, materials and equipment required:

- Dented panel
- Compressed air supply
- Panel beating tools
- Cleaning materials
- Assorted paints
- Spray gun
- Thinners
- Sanding papers (assorted)
- Body file
- Primer and hardener
- Masking materials
- Nose masks

3. Replace the universal joint of the propeller shaft provided. (1 hour)

Tools, materials and equipment required:

- Complete propeller shaft
- Universal joint bearings
- Cleaning materials
- Grease
- Workshop tools
- Vee blocks
- dial indicator

4. Fabricated the spanner shown in figure 1.
Using the materials provided. Stamp the words "MADE IN KENYA" on the face shown.
(1 $\frac{1}{2}$ hours)

Tools, equipment and materials required:

- MS plate 200x 50 x 5 mm 1 pc per candidate
- Assorted files
- Marking out tools
- ϕ 5mm and ϕ 10 mm drill bits
- Drilling machine
- Letter punches
- Hacksaw
- Scriber
- Steel rule
- Folding bars
- Heating furnace/charcoal
- Pair of tongs

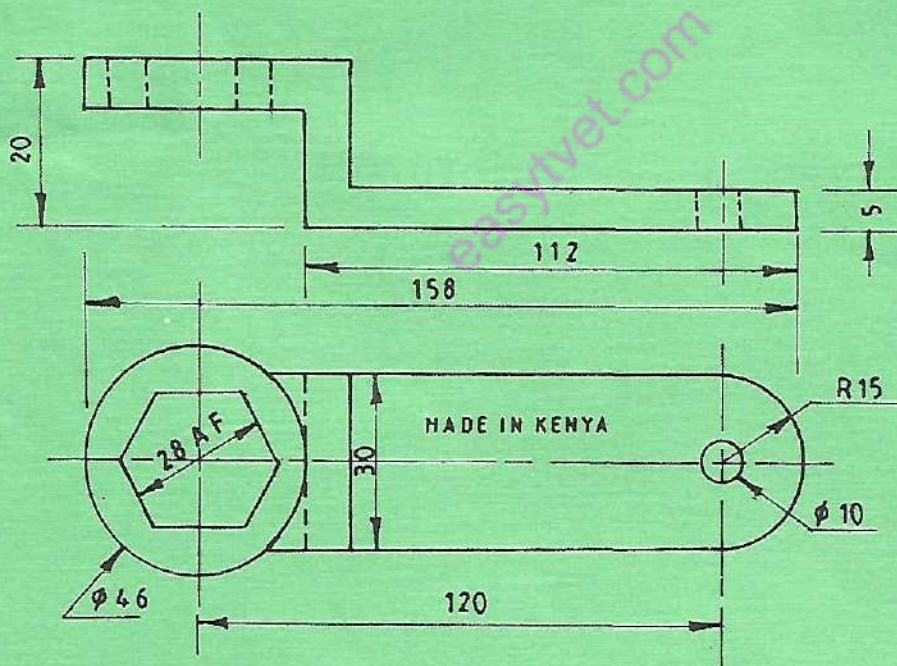


Fig. 1 RING SPANNER

5. Carry out the following tasks on the two batteries provided. Let the examiner check your work. (30 minutes)

- (a) Inspect the batteries and report their condition.
- (b) Connect the batteries in series and measure the total voltage and total current.
- (c) Charge the batteries using the constant current charging method.

Tools, equipment and materials required:

- Two car batteries
- Battery charger
- Multimeter
- Cables
- Cleaning materials
- Electrolyte.

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