1503/206 TRADE PRACTICE II Oct./Nov. 2014 Time: 6 hours



## THE KENYA NATIONAL EXAMINATIONS COUNCIL

## CRAFT CERTIFICATE IN AUTOMOTIVE ENGINEERING MODULE II

TRADE PRACTICE II

6 hours

## INSTRUCTIONS TO CANDIDATES

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

Tools, equipment and materials required for this examination will be provided by the centre. This paper consists of FOUR questions.

Answer ALL questions as instructed by the examiner.

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

This paper consists of 3 printed pages.

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

Carry out the following tasks on the vehicle cooling system: 1. (a) pressure cap test; (b) leakage test; service the radiator cover and fins. (c) (1 hour 45 minutes) Tools, materials and equipment - Radiator pressure cap - Radiator cap tester - Radiator - Workshop tools - Cleaning materials - Stop watch Remove the fuel injector from the engine provided. Overhaul, test and fit it back to the engine. 2.  $(1\frac{1}{4} \text{ hours})$ Start the engine and test the injector for operation. Tools, Materials and equipment required - A compression ignition engine in working condition - Injector tester - Stop watch Workshop tools - Workshop manual for the engine - Cleaning materials - Calibrating fluid/ diesel fuel - Blotting paper - Parts tray Determine the following on the engine provided and report the results to the examiner: 3. (a) cylinder bore for wear; crankshaft oil clearance measurements; (b) (c) crankshaft end float. (2 hours) Tools, materials and equipment - Engine block with crankshaft in position - Bore gauge - Dial gauge - Torque wrench - Cleaning materials - Plasti gauge - Oil can with engine oil

Workshop toolsWorkshop manual

- Feeler gauge

- 4. On the vehicle provided, service and test the following electrical components:
  - (a) spark plug;
  - (b) electric horn.

(1 hour)

## Tools, materials and equipment required:

- A vehicle with SI engine
- Workshop tools
- Feeler gauge
- New spark plug
- Spark plug tester
- Battery in good condition
- Electric horn.