

## Competitor Instruction Sheet – Task A - Fifth Gear Replacement

Competitor Name \_\_\_\_\_

This task is intended to test your ability to remove and replace fifth gear from a front wheel drive gearbox, the gearbox will be drained of oil and on a bench.

The end cap is removed and does not require refitting.

Remove the selector assembly.

Remove both gears from the first and second motion shafts.

Calculate the gear ratio.

Identify any damage to the components.

Refit components and ensure correct operation.

Identify transmission components

## Competitor Instruction Sheet – Task B - Vehicle Safety Inspection

This task is intended to test your ability to carry out a safety inspection on a vehicle

1. Carry out a visual inspection on the vehicle as prescribed on the report sheet
2. Complete the safety inspection report recording any faults identified

Note: you are not required to rectify any faults found

You have **45 minutes** to complete this task

## **Competitor Instruction Sheet – Task C**

### **Replacement of a camshaft drive system;**

**This task is intended to test your ability to carry out the replacement of a camshaft drive system.**

Using the test rig engine gain access to the Drive System

Lock the engine crankshaft and camshafts using the dedicated specialist tools. Set the timing of the engine to aid replacement.

Replace the Drive system and correctly tension. Allow the judge visual inspection of the locked components.

Reassemble the engine replacing the serpentine belt.

Rotate the engine 2 revolutions

## Competitor Instruction Sheet – Electrical Systems – Task D

Competitor Name \_\_\_\_\_

This task is intended to test your ability to diagnose a non-start fault and notify the judge.

Report whether the vehicle charging system is operating correctly.

1. Check does vehicle start
2. Check battery voltage
3. Replace battery if required
4. Identify non start fault
5. Carry out charging tests

## Competitor Instruction Sheet – ABS System - Task E -

Competitor Name \_\_\_\_\_

This task is intended to test your ability to diagnose an ABS Fault by testing components and to notify the judge of your findings.

1. Fault code read ABS system and record faults.
2. Identify sensor type and follow correct testing methods to test if the sensor is within tolerance.
3. Check correct operation of ABS reluctor ring using an oscilloscope to test output signal.