Lab - Alternator Test

Students: 1. _____ Date: _____
2. _____ Block:_____
3. _____

Fill in each box with the appropriate information. Place checks (✔) where applicable.
Be sure to have Instructor's initials before moving on to the next step. Each team member will need to answer questions to receive credit for this lab.

VEHICLE IDENTIFICATION			
Year:		Make:	
Model:		Mileage:	
VIN Number:			

SYSTEM INVESTIGATION

1 In order for this test to provide accurate results, the battery must be fully charged and in good shape - it is a good idea to service the battery first, as well as make sure all connections are perfect.

PREPARATION

2

- ☐ **Check service manual for the correct specifications regarding your vehicle**
- ☐ Turn off ALL accessories
- ☐ Position the **VAT 40** so that the gauges can be seen from the driver's seat
- ☐ Ensure that the LOAD knob is "off"
- ☐ Connect large Red (+) and Black (-) cables to battery
- ☐ Connect Green cable around the Alternator cable, with the arrow pointing away from the Alternator
- ☐ Place the test selector knob to the ALTERNATOR TEST position (Blue Square)

CAUTION

Batteries can be very dangerous.

Always wear eye protection, remove ALL jewellery and loose clothing.

Loose battery cables can arc, igniting any present Hydrogen gasses from the battery.

Always wash your hands with soap and water after handling a battery.

STOP! INSTRUCTOR'S INITIALS: ____

PROCEDURE

3

☐ Start and run engine at 2000rpm

☐ Record the battery voltage (Green Scale): _____

☐ Record the current (Blue Scale): _____

☐ Load the system with the VAT 40 until maximum current is reached

DO NOT KEEP AT THIS POSITION FOR MORE THAN A FEW SECONDS!

PERMANENT DAMAGE TO THE VAT40 CAN RESULT!

☐ Record the load voltage: _____

☐ Record the load current: _____

☐ Return the load to zero, stop engine and disconnect VAT 40

Are the text results within 10% of the specifications? [yes] [no]

4

Assume the system did not pass (little or no current). Where below would you inspect to find the cause?

Inside the alternator:

1.

2.

3.

4.

Other than the alternator:

1.

2.

STOP! INSTRUCTOR'S INITIALS:

