



Student Name: _____

Class: _____

Student ID: _____

Date: {{DATE}}

Assessment Details

Duration: 60 minutes	Total Marks: 100
Topics Covered:	<ul style="list-style-type: none">• Alternator Components• Repair and Maintenance Procedures• Safety Procedures

Instructions to Students:

1. Read all questions carefully before attempting.
2. Show all working out - marks are awarded for method.
3. Calculator use is permitted except where stated otherwise.
4. Write your answers in the spaces provided.
5. If you need more space, use the additional pages at the end.
6. Time management is crucial - allocate approximately 1 minute per mark.

Section A: Multiple Choice [20 marks]

Question 1

[2 marks]

What is the primary function of the alternator in a vehicle's electrical system?

A) To start the engine

B) To charge the battery and power the vehicle's systems

C) To regulate the voltage of the electrical system

D) To convert electrical energy into mechanical energy

Question 2

[2 marks]

Which of the following is a key component of an alternator?

A) Starter motor

B) Battery

C) Stator

D) Fuel pump

Question 3

[2 marks]

What is the purpose of the voltage regulator in an alternator?

A) To increase the voltage of the electrical system

B) To decrease the voltage of the electrical system

C) To regulate the voltage of the electrical system

D) To convert AC power to DC power

Question 4

[10 marks]

Describe the steps involved in repairing a faulty alternator.

Question 5

[10 marks]

Explain the importance of safety procedures when working with electrical systems.

Question 6

[10 marks]

What are the consequences of not following proper safety procedures when working with electrical systems?

Section C: Diagram Labeling [20 marks]

Label the following components of the alternator diagram:

- Stator
- Rotor
- Voltage regulator
- Brushes
- Slip rings



Section D: Interactive Simulation [20 marks]

Participate in an interactive simulation where you will be required to:

1. Identify the key components of an alternator
2. Demonstrate the steps involved in repairing a faulty alternator
3. Apply safety procedures when working with electrical systems



Conclusion

This assessment is designed to evaluate students' knowledge and understanding of alternator repair and maintenance. By completing this assessment, students will demonstrate their ability to identify and explain the key components of an alternator, describe the steps involved in repairing alternator components, and apply safety procedures when working with electrical systems.

Additional Resources

For further learning and review, students can refer to the following resources:

- Alternator repair and maintenance manual
- Online tutorials and videos
- Classroom notes and handouts

