

**Thomas A. Edison Career & Technical Education H.S.**165-65 84th Ave. * Jamaica, New York 11432 * (718) 297-6580 * Fax (718) 658-0365**Moses Ojeda**
*Principal***Emanuel Collado**
*CTE Coordinator***Miguel A Sierra**
Automotive Instructor

All Assignments must be typed using the following format-12pt. Font, Times New Roman, Double Spaced, 1in. Margin, Full Sentences, Proper Grammar and a cover page with your name and ois

Type and completely answer each question. This summer assignment will be factored into your class grade. You will also take an assessment on the information covered by this assignment. It is due no later than Monday September 19, 2016.

1. Explain the difference between Voltage, Amperage, and Resistance
2. How is a voltage drop test performed? And why is it important?
3. How does a relay operate?
4. Describe the various tests that should be performed on an automotive battery?
5. Identify the colors wires/loom and connectors are used in the following: Why are these colors used?
A. Hybrid vehicle B. Supplemental Restraint System
6. Categorize the various bulbs which make up the vehicles Lighting System.
7. Compare a Series Circuit and a Parallel Circuit.
8. Develop a diagnostic plan for the following customer complaint: Brake Pedal Pulsation while braking? *Identify the component which must be inspected, tests performed and tools used*
9. Describe the difference between Disc Brakes and Drum Brakes?
10. Compare the various suspension systems used in passenger vehicle?
11. Compare and Contrast a Parallelogram Steering System and a Rack and Pinion Steering System?
12. Identify the components of each:
A. Parallelogram Steering System B. Rack and Pinion Steering System
13. Describe the difference between a strut and a shock.
14. Identify 4 types of springs and describe each.
15. Differentiate between an Ignition System with a Distributor and a Distributor-less Ignition System.
16. Compose an argument which explains why engines went from Carburetor to Fuel Injection.
17. What can be determined by performing a vacuum test on an engine?
18. What can be determined by performing a compression test on an engine?
19. Explain the purpose of the Lubrication System?
20. Explain how the cooling system affects engine performance?
21. Describe each stroke of the four stroke cycle.
22. How does the vehicle's ECM determine the stroke an engine is in?
23. Identify at least three faults which can cause an Engine Misfire?
24. Develop a Diagnostic Plan for addressing a MIL (Malfunction Indicator Light) on concern?
25. How does the Evap. system reduce emissions?

You must also join my google classroom Class Code : 14k089z



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Name _____ Osis _____

12th Grade
Auto Live

Summer Assignment
Mr. Sierra