

1) What is the purpose of a governor on the engine? (Hint: it has nothing to do with politics) (Vocabulary Word)

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2) A(n) \_\_\_\_\_ Combustion engine converts thermal energy from the fuel inside the engine to mechanical energy. (Session 1)

3) What is the proper order of steps to complete one engine cycle in a 4-stroke engine? Hint: (4 Steps). (Session 1)

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4) What is the factor that often influences the design and operation of transportation systems? (Session 1)

- a) Humidity
- b) Government regulations
- c) Popular Mechanics
- d) Potential Energy

5) Petroleum, Natural Gas, and Coal are all examples of fossil fuels. If False what is the correct answer? (RCA 2)

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- a) True
- b) False

Match the tool with its correct classification: (Session 2)

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|------------------------|---------------------|
| 6) _____ Rubber Mallet | a) Fastening        |
| 7) _____ Torque Wrench | b) Striking/Driving |
| 8) _____ Dial Caliper  | c) Measuring        |
| 9) _____ Pliers        | d) Specialty        |

10) When would you use a feeler gauge? (Clue we did this is session 4) (Session 2)

- a) Measuring the cylinder bore
- b) Measuring the stroke
- c) Measuring the valve caps
- d) Measuring the valve Clearance

11) If a force of 94 pounds is applied to a ratchet handle that is 6 inches (.5 foot) long, how much torque will be transferred to the ratchet's drive? Hint (Torque= Force x Drive) (RCA 3)

Show all work

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12) What is the name of the part of the engine that provides both the space and strength needed to house all the internal and external engine components? (Session 3)

- a) Cylinder Head
- b) Engine Block
- c) Valve Cover
- d) Gas Tank

13) The \_\_\_\_\_ ignites the fuel in a gasoline-powered internal combustion engine. (Session 3)

14) Valve Tappets get moved by the cam lobes which changes rotary motion into linear motion. If false, what is the correct Answer? (Session 4)

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- a) True
  - b) False

15) What is the position of the intake valve and the exhaust valve during the compression stroke? (Session 4)

- a) Closed, Open
- b) Closed, Closed
- c) Open, Closed
- d) Open, Open

16) The Valve guide is the engine part that pivots to open and close overhead valves. If false, what is the correct answer? (Session 4)

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- a) True
  - b) False

17) What is the engine part that converts linear motion to rotational motion inside a reciprocating internal combustion engine? (Session 6)

- a) Piston
- b) Crankshaft
- c) Valve Tappets
- d) Spark Plug