

Automotive Technology Essentials

Automotive Technology · Answer Key · 15 Questions

1. What is the primary purpose of an alternator in a vehicle?

- A) To ignite the fuel mixture
- B) To charge the battery while the engine is running**
- C) To cool the transmission fluid
- D) To measure the speed of the wheels

2. Which component is responsible for timing the opening and closing of engine valves?

- A) Piston ring
- B) Camshaft**
- C) Spark plug
- D) Oil pump

3. What does the 'ABS' acronym stand for in automotive braking systems?

- A) Automatic Braking System
- B) Advanced Battery Safety
- C) Anti-lock Braking System**
- D) Accelerated Brake Sensor

4. In a standard internal combustion engine, what is the function of a spark plug?

- A) To lubricate the cylinder walls
- B) To convert exhaust gases into oxygen
- C) To ignite the air-fuel mixture**
- D) To filter impurities from the fuel

5. Which fluid is most commonly used to transfer power in automatic transmissions?

- A) Engine oil
- B) Brake fluid
- C) Transmission fluid**
- D) Coolant

6. What component connects the transmission to the drive wheels in a rear-wheel-drive vehicle?

- A) Drive shaft**
- B) Air filter
- C) Radiator
- D) Fuel rail

7. What is the main function of a vehicle's catalytic converter?

- A) To increase horsepower
- B) To reduce harmful exhaust emissions**
- C) To improve fuel efficiency
- D) To suppress engine noise

8. Which component regulates the temperature of the engine by controlling the flow of coolant?

- A) Water pump
- B) Radiator cap
- C) Thermostat**
- D) Condenser

9. What is the primary role of a timing belt or timing chain?

- A) To synchronize the rotation of the crankshaft and camshaft**
- B) To drive the air conditioning compressor
- C) To measure the engine's RPM
- D) To charge the ignition system

10. What device allows the wheels on the same axle to rotate at different speeds during a turn?

- A) Transmission
- B) Differential**
- C) Transfer case
- D) Clutch

11. Which part of the car's suspension system absorbs shocks from the road surface?

- A) Brake rotor
- B) Strut or shock absorber**
- C) Tie rod
- D) Control arm

12. What is the purpose of the intake manifold?

- A) To exhaust burnt gases
- B) To distribute air to the engine cylinders**
- C) To filter debris from the engine oil
- D) To store electrical energy

13. What does the 'VIN' on a vehicle stand for?

A) Vehicle Identification Number

B) Vehicle Inspection Network

C) Variable Ignition Node

D) Velocity Indicator Notch

14. Which component in an engine acts as a seal between the engine block and the cylinder head?

A) Piston ring

B) Head gasket

C) Oil seal

D) Valve seal

15. What is the function of the fuel injector?

A) To pump fuel from the tank

B) To spray fuel into the combustion chamber

C) To measure fuel density

D) To cool the fuel before it enters the engine