

Automotive Technology Basics

Automotive Technology · Practice Test · 25 Questions

1. What is the primary function 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 engine coolant
- D) To provide torque to the wheels

2. Which component is responsible for regulating the temperature of an internal combustion engine?

- A) Thermostat
- B) Fuel pump
- C) Alternator
- D) Flywheel

3. In a four-stroke engine, which stroke compresses the air-fuel mixture?

- A) Intake
- B) Power
- C) Compression
- D) Exhaust

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

- A) Automatic Braking System
- B) Anti-lock Braking System
- C) Advanced Battery Storage
- D) Axle Balance Sensor

5. Which fluid is primarily used to lubricate the internal moving parts of an engine?

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

6. What is the purpose of a catalytic converter in a vehicle's exhaust system?

- A) To muffle engine noise
- B) To convert toxic pollutants into less harmful gases
- C) To increase fuel efficiency
- D) To store excess fuel

7. Which component connects the transmission to the wheels in a rear-wheel-drive vehicle?

- A) Driveshaft
- B) Spark plug
- C) Carburetor
- D) Distributor

8. What is the stoichiometric ratio of air to fuel for a gasoline engine?

- A) 10:1
- B) 14.7:1
- C) 20:1
- D) 5:1

9. Which sensor measures the amount of oxygen in the exhaust gases?

- A) O2 sensor
- B) MAF sensor
- C) TPS sensor
- D) MAP sensor

10. What does the 'T' in 'TDI' stand for in diesel engines?

- A) Transmission
- B) Turbocharged
- C) Torque
- D) Timed

11. Which device converts reciprocating motion into rotational motion in an engine?

- A) Crankshaft
- B) Camshaft
- C) Timing belt
- D) Piston ring

12. What is the function of the spark plug in a gasoline engine?

- A) To measure fuel pressure
- B) To ignite the air-fuel mixture
- C) To inject fuel into the cylinder
- D) To lubricate the valves

13. Which part of the car's electrical system stores energy for starting the engine?

- A) Generator
- B) Starter motor
- C) Lead-acid battery
- D) Fuse box

14. What type of suspension system uses a single arm to connect the wheel hub to the vehicle frame?

- A) MacPherson strut
- B) Solid axle
- C) Leaf spring
- D) Torsion bar

15. Which gear in a manual transmission is typically used to move the vehicle in reverse?

- A) First gear
- B) Second gear
- C) Reverse gear
- D) Neutral gear

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

- A) To drive the wheels
- B) To synchronize the rotation of the crankshaft and camshaft
- C) To power the air conditioning
- D) To provide electrical current to the lights

17. Which automotive component is responsible for reducing engine vibrations?

- A) Radiator
- B) Engine mount
- C) Brake rotor
- D) Fuel injector

18. What is the function of a differential in a vehicle?

- A) To allow wheels to rotate at different speeds during turns
- B) To steer the vehicle
- C) To lock the engine speed
- D) To monitor tire pressure

19. Which indicator light on a dashboard typically suggests an issue with the engine's management system?

- A) Oil pressure light
- B) Check engine light
- C) High beam indicator
- D) Seatbelt warning

20. What is the substance used in modern vehicles to help reduce nitrogen oxide emissions?

- A) AdBlue
- B) Motor oil
- C) Brake fluid
- D) Transmission oil

21. Which component is designed to dissipate heat from the engine coolant?

- A) Condenser
- B) Radiator
- C) Heater core
- D) Oil filter

22. What does the term 'displacement' refer to in an engine?

- A) The top speed of the vehicle
- B) The total volume of the cylinders
- C) The weight of the engine
- D) The fuel tank capacity

23. Which part acts as a seal between the engine block and the cylinder head?

- A) Valve cover gasket
- B) Head gasket
- C) Oil pan gasket
- D) Intake manifold gasket

24. What is the purpose of an intercooler in a turbocharged engine?

- A) To heat up the fuel
- B) To cool the intake air
- C) To lubricate the turbocharger
- D) To reduce exhaust backpressure

25. Which component converts chemical energy from fuel into mechanical energy?

- A) Battery
- B) Engine
- C) Differential
- D) Steering rack