

1. What is the automobile sector?

A: The automobile sector is a broad term that encompasses all companies involved in the design, manufacturing, marketing, and sale of motor vehicles.

2. How will you differentiate between two stroke engine and four stroke engines?

A: 2-stroke piston engine has an intake and an exhaust stroke. All air, fuel, and combustion products must be moved in those 2 strokes. A 4-stroke engine has a separate stroke for moving burned (or burning) and unburned mixtures - intake, compression, expansion, and exhaust. Using 4-stroke results in cleaner emissions at the expense of specific power.

Two stroke: For each explosion in cylinder piston moves downwards and upwards (one complete cycle) (Power stroke and Exhaust stroke).

Four stroke: for each explosion in cylinder piston moves down and upwards twice (two complete cycle) (Intake , compression, power, exhaust stroke.)

Four stroke is highly efficient than two stroke.

But two stroke is powerful than four stroke

3. What are some of the major players in the automobile sector?

A: Major players in the automobile sector include Toyota, General Motors, Volkswagen, Ford, Honda, and BMW.

4. Explain the significance of governor in automobiles?

A: Governor is an important component of automobile engine. It is used to regulate the main speed of engine during the variations in loads. With the variations in the load, fuel supply has to be maintained. This task is performed by the governor. In the case of high load on the engine, speed decreases, hence fuel supply has to be increased and similarly when load decreases then the fuel supply has to be decreased.

5. What is the difference between a car and an SUV?

A: A car is typically smaller and more compact than an SUV, while an SUV is larger and has more interior space.

6. What is SAE? Mention the importance of SAE to the automobile domain.

A: SAE stands for society of automotive engineers. This society is responsible for developing the standards for the engineering of powered vehicles of all kind. The vehicles may include car, boat, truck and even aircraft. SAE has developed standards for ground vehicles and aerospace vehicles. SAE also encourages students of engineering, technology, science and math's disciplines. This society has been publishing technical information since 1906.

7. What is an electric vehicle?

A: An electric vehicle is a vehicle that is powered by an electric motor rather than an internal combustion engine.

8. What is a hybrid vehicle?

A: A hybrid vehicle is a vehicle that combines an internal combustion engine with an electric motor to achieve better fuel efficiency.

9. What is a plug-in hybrid vehicle?

A: A plug-in hybrid vehicle is a hybrid vehicle that can be recharged from an external power source, such as an electric outlet.

10. What is an autonomous vehicle?

A: An autonomous vehicle is a vehicle that is capable of driving itself without human input.

11. What is the difference between BS2 & BS3 engine?

A: IN BS2 there is No catalytic converter to reduce formation of co and HC whereas in BS3 catalytic converter is available to reduce the formation of HC and CO. So less emission of HC and co will take place in BS3

12. What is the difference between horsepower and torque?

A: Horsepower measures the power output of an engine, while torque measures the rotational force generated by the engine.

13. What is a turbocharger?

A: A turbocharger is a device that compresses the air entering an engine to increase its power output.

14. What is a supercharger?

A: A supercharger is a device that forces more air into an engine to increase its power output.

15. How does the thermostat work?

A: When the engine is too cold the thermostat closes the main valve, thus stopping the flow to the radiator. When the engine is too hot, it opens the main valve for normal circulation through the radiator.

16. What is the difference between four-wheel drive and all-wheel drive?

A: Four-wheel drive typically refers to a system that sends power to all four wheels equally, while all-wheel drive can send power to individual wheels as needed.

17. What is a CVT transmission?

A: A CVT (continuously variable transmission) transmission is a type of transmission that can vary the gear ratio continuously rather than using fixed gears.

18. What is a dual-clutch transmission?

A: A dual-clutch transmission is a type of transmission that uses two separate clutches to shift gears quickly and smoothly.

19. What is a manual transmission?

A: A manual transmission is a type of transmission that requires the driver to shift gears manually using a clutch pedal and a gear shifter.

20. What is an automatic transmission?

A: An automatic transmission is a type of transmission that shifts gears automatically without requiring any input from the driver.

21. What is the difference between front-wheel drive and rear-wheel drive?

A: Front-wheel drive sends power to the front wheels, while rear-wheel drive sends power to the rear wheels.

22. What is a car battery?

A: A car battery is a rechargeable battery that provides power to the vehicle's electrical system.

23. What is a catalytic converter?

A: A catalytic converter is a device that reduces the emissions from a vehicle's exhaust system by converting harmful gases into less harmful ones.

24. What is an air filter?

A: An air filter is a device that filters the air entering the engine to prevent dirt and debris from damaging it.

25. What is a fuel filter?

A: A fuel filter is a device that filters the fuel entering the engine to prevent dirt and debris from damaging it.

26. What is an alternator?

A: An alternator is a device that converts the mechanical energy from the engine into electrical energy to power the vehicle's electrical system and recharge the battery.

27. What is a starter motor?

A: A starter motor is a device that uses electrical energy to turn the engine over and start it.

28. who invented the automobile?

A. There are many different types of automobiles – steam, electric, and gasoline – as well as countless styles. Exactly who invented the automobile is a matter of opinion. Earlier accounts often gave credit to Karl Benz, from Germany, for creating the first true automobile in 1885/1886. However, our knowledge of the invention of the true automobile continues to evolve. The story of the invention of the automobile has become enriched with various other figures who played a part in its history.

29. What is an automotive differential and how does it work?

A: The automotive differential is designed to drive a pair of wheels while allowing them to rotate at different speeds. In vehicles without a differential, such as karts, both driving wheels are forced to rotate at the same speed, usually on a common axle driven by a simple chain-drive mechanism.

30. Why are car steering wheels round?

A. steering wheel is round so that your hands locate in the same place regardless of the steering wheel's orientation.

While turning / steering the car it is ergonomically the best design.

Also as design is circle, there are no edges to hit while turning / steering is moving as the circle position remains the same.

From Design view, it should be able to give uniform force i.e. torque, by varying the distance from center will vary the torque provided.