How does an Electric Car work?

https://www.youtube.com/watch?v=3SAxXUIre28

1. What are the two main parts of an induction motor?

The stator and the rotor.

2. What does the speed of an induction motor depend on?

It depends on the frequency of the AC power supply.

3. What is the most sizeable adavantage of electric cars when compared to internal combustion cars?

The motor speed can range from zero to 18,000 RPM.

4. Why do induction motors have a higher power to weight than IC engines?

Many components in the IC engine can be avoided in induction motors.

5. In an electric car where does the motor receive power from?

From a battery pack.

6. How are the cells connected to produce the power required to run your electric car?

The cells are connected in a combination of series and parallel.

7. How is effective cooling guaranteed in Tesla motors?

By using many small cells instead of using big cells.

8. Where is the battery pack placed?

It's spread accross the floor, offering structural rigidity against side collisions.

9. Why does an advanced car like this use an open differential rather than a limited slip differential?

Because the open differential is more rugged (robusto, resistente) and can carry more torque.

10. What are the advantages of electric cars?

They are much safer than internal combustion cars and the cost of driving and mantaining an electric car is much lower.