# Introduction Section Questions 🔍

* What are the key components of an Electric Vehicle?
* Explain the role of an Onboard Charger (OBC) in an electric vehicle
* Why is onboard charging critical for electric vehicle technology?

# Literature Review Section Questions 💡

* What are the challenges associated with traditional Dual Active Bridge (DAB) converters?
* Explain the modifications proposed to improve DAB converter performance
* What is the significance of digital control in DAB converters?

# AC-DC Conversion Section Questions 🔌

* Compare and contrast diode and controlled rectifiers
* What is Power Factor Correction (PFC), and why is it important?
* Explain the difference between passive and active PFC
* What is a Totem Pole PFC, and how does it operate?

# DC-DC Converter Questions 🔋

* What are the key features of a Dual Active Bridge (DAB) converter?
* Explain the operating principle of a DAB converter
* What are the different phase shift strategies in DAB converters?
* Compare Single-Phase Shift (SPS), Dual-Phase Shift (DPS), and Triple-Phase Shift (TPS)

# Methodology Section Questions 🧠

* Describe the PI control mechanism
* How does Phase Shift Control work in power electronics?
* Explain Pulse Width Modulation (PWM) and duty cycle

# Results and Discussion Section Questions 📊

* What were the initial challenges in the Totem Pole PFC circuit?
* How did you resolve the voltage ripple issues?
* Explain the importance of matching switching frequencies between Totem Pole PFC and DAB circuits
* What was the final efficiency of your system?

# Conclusion and Future Work Questions 🚀

* What are the next steps for optimizing this onboard charging system?
* What challenges did you encounter during the simulation?
* How can this design be improved for real-world electric vehicle applications?

# Pro Tips for Viva Preparation 💪:

* Be confident and articulate
* Use technical terminology from the document
* Explain concepts clearly and concisely
* Be prepared to draw diagrams or explain circuit behaviors
* Show your understanding of the underlying principles, not just memorized facts