



Question Paper Sponsored by  
CSI Institute OF Technology, Thovalai, Kanyakumari Dist.

PART B — (5 × 13 = 65 marks)

11. (a) Explain in detail the layout of an automobile and its subsystem with a neat sketch.

Or

- (b) Elucidate the different types of resistance of vehicle motion.

12. (a) Draw the line diagram of electronic fuel injection system and enumerate its various components and mention their function briefly.

Or

- (b) Explain the working principle of turbo charger with a neat layout.

13. (a) Discuss in detail the construction and operation of any one type of differential used in an automobile with a neat sketch.

Or

- (b) Explain the construction of a helical spring type single plate clutch with the help of a neat layout.

14. (a) Explain the construction and operation of hydraulic braking system with suitable sketches.

Or

- (b) Explain the necessity of power steering in an automobile. Sketch integral power steering system and explain its working.

15. (a) Discuss the principle of operation of a fuel cell with a neat sketch.

Or

- (b) Elucidate the problems associated with hydrogen as a fuel along with providing appropriate solutions in detail.

