



PART – B

(5×16=80 Marks)

11. a) With indicative sketches, describe about the chassis layout used in Front Engine Rear Drive vehicles. (16)
- (OR)
- b) With a neat sketch, explain about the various resistances acting on a vehicle in motion. (16)
12. a) With an indicative sketch, elaborate about the working of a Common Rail Diesel Injection system. (16)
- (OR)
- b) With aid of a cut a way sketch, explain about the working of a three-way catalytic converter used in vehicles. Also, write down the various relevant chemical reactions on the same. (16)
13. a) i) Enumerate the need of a transmission system in an automobile. (Any 4 points) (4)
- ii) Write short notes on the working principle of a torque converter. (include a simple sketch). (12)
- (OR)
- b) Enumerate the components used and describe about its functions in a Hotchkiss drive configuration. (16)
14. a) With relevant sketches write short notes on the following :
- i) Caster (5)
- ii) Camber (5)
- iii) Toe-in & Toe-out. (6)
- (OR)
- b) With a simple block diagram, analyze the working of an Anti-Lock Braking system used in passenger cars. (16)
15. a) Discuss the performance and emission characteristics of a diesel engine fuelled with Bio-Diesel as fuel. (16)
- (OR)
- b) With an indicative sketch, discuss about the working of a proton Exchange Membrane fuel cell. (16)