

Time allowed: 3 Hours

Max. Marks: 50

NOTE: Attempt five questions in all, including Q. No. 1 which is compulsory and selecting atleast two questions from each Unit.

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- I.
- (a) Why frame is narrow at the front?
 - (b) Why we provide Gear box in a vehicle?
 - (c) What are the types of oil supply systems?
 - (d) What is the function of choke valve in the carburettor?
 - (e) What are the primary objectives of lubrications?
 - (f) What do you mean by hydrodynamic lubrication?
 - (g) Why epicyclic gear is used in automatic gear system?
 - (h) What are the resistance forces which effect the movement of an automobile?
 - (i) What do you understand from the terms oversteer and understeer?
 - (j) What is the function of an ignition coil?
- (10×1)

UNIT-I

- II.
- (a) What is double declutching?
 - (b) Explain the working of torque converter and draw performance curves. (3+7)
- III.
- (a) What is the contribution of automobiles towards pollution of the atmosphere? What is crank case ventilation and how is it achieved? (6+4)
 - (b) Explain with a neat sketch about sliding mesh Gear box.
- IV.
- (a) What are The methods of fuel injection in Diesel engine? Explain.
 - (b) What are the different methods of Engine cooling systems? Explain water cooling systems. (5+5)

UNIT-II

- V. Write short notes on: -
- (a) Types of tyres and designations
 - (b) ABS
 - (c) Injection Pump
- (3+4+3)
- VI. How can you classify the brakes? Explain in detail hydraulic brake system with neat sketch. (10)
- VII. Explain the working of CVT. How it is advantageous than conventional transmission system? (10)
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