



2209 T004

**SECTION -A (SHORT/OBJECTIVE TYPE QUESTIONS)**  
(10x 1= 10 Marks)

- A. Enlist the important typical components of an automobile.
- B. What are the functions of a clutch in a transmission system?
- C. Differentiate between two stroke and four stroke diesel engines.
- D. Differentiate between knocking and detonation.
- E. Mention the functions of a cut-out in a battery charging system.
- F. Enlist the functions of a thermostat in an engine cooling system?
- G. Describe the circumstances which necessitate the servicing of an automobile.
- H. Differentiate between disc and ABS braking systems.
- I. Differentiate between supercharging and turbocharging systems.
- J. Enlist the various fuel injection systems used in automobiles.

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**SECTION -B (ESSAY TYPE QUESTIONS)**  
(5x5=25 Marks)

1. Discuss the working and construction of a vacuum braking system used in automobiles.
2. Explain a forced-circulation cooling system used in automobiles with a neat sketch.
3. Describe the construction and working of an automatic transmission system used in cars.
4. What is an ABS system? How it improves the braking efficiency of an automobile? List its merits and demerits.
5. What is a regenerative braking system? What are its roles in an electric vehicle?
6. Differentiate between electric and hybrid vehicles. Mention examples of electric and hybrid vehicles available in India.
7. Write short notes on:
  - (a) Transistorized coil ignition system,
  - (b) Capacitive discharge ignition system
8. What are the methods to test the ignition system and spark plug?

==END OF PAPER==