

Answer any FIVE Questions

All Questions carry equal marks

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1. What are the important basic components of an internal combustion engines? Explain them briefly.

2. (a) Define carburetion. What are the factors that affect carburetion?
(b) Name the different methods of fuel injection system. Describe with neat sketch the airless solid injection system in C.I. engines.

3. (a) Explain with neat diagrams the different types of cooling systems used in automobile engines.

(b) Explain briefly how the high voltage required for sparking is built up by the battery ignition system.

4. (a) What are the sources of HC formation in petrol engine? Explain various factors which effect the HC formation.

(b) What are the methods used to control diesel particulate emissions?

5. Describe in detail the procedure for servicing of a generator regulator mentioning clearly how correct regulator setting is obtained.

6. Explain why two Hook's joints are used to transmit motion from the engine to the differential of an automobile.

7. Write short notes on following,
 - (a) Camber
 - (b) Caster
 - (c) Ackerman steering principle.

8. Briefly explain the need for shock absorbers in the suspension system of the vehicles.