



2018 III 14

1000

Seat No. :

--	--	--	--	--

Time : 2 Hours

**AUTOMOBILE ENGINEERING – II**  
**(New Pattern)**

**Subject Code**

V	3	2	2
---	---	---	---

**Total No. of Questions : 5**

**(Printed Pages : 2)**

**Maximum Marks : 50**

- INSTRUCTIONS:**
- Answer **each** question on a **fresh** page.
  - Write the number of **each** question and sub-questions **clearly**.
  - All** questions are **compulsory**.
  - Figures to the **right** indicate **full** marks.
  - Illustrate your answers with **neat** labelled diagrams **wherever** necessary.

- A) Answer the following questions in **one** sentence **each** :
    - What is the purpose of hand priming pump provided at suction side of fuel feed pump. [1]
    - Define the term 'Phasing' of inline fuel injection pump. [1]
    - What are the constituents of Compressed Natural Gas (CNG) ? [1]
    - Name the components of Liquefied Petroleum Gas (LPG) fuel system. [1]
    - Why antifreeze solution added to the coolant ? [1]
    - Which liquids are usually used in the bellows type thermostat valve ? [1]
  - B) Draw neat labelled diagram of Mechanical Fuel Pump used in petrol car and explain its working. [4]
- 
- A) Answer the following questions :
    - Explain 'Venturi effects' in simple carburettor. [2]
    - List down any four requirements of Diesel engine fuel injection system. [2]
    - State any four advantages of Petrol Engine Fuel injection system over carburettor system. [2]
  - B) Explain the construction of individual pump system in diesel engine with help of neat line labelled sketch. [4]



3. A) Answer the following questions :
- i) Explain the use of following sensor in electronic fuel injection system :
    - a) Oxygen [1]
    - b) Throttle position. [1]
  - ii) Write the function of the following parts in-corporated in Petrol Engine injection system :
    - a) Pumping element [1]
    - b) Metering element. [1]
  - iii) State any four advantages of Liquid Petroleum Gas (LPG). [2]
- B) Explain construction and working of crescent type oil pump. [4]
4. A) Answer the following questions :
- i) State any four functions of lubricating oil. [2]
  - ii) Write short note on 'Oil Cooler'. [2]
  - iii) Explain 'Thermosyphon' water cooling method. [2]
- B) Draw neat labelled line diagram of Automobile Airconditioning system and explain its working. [4]
5. A) Answer the following questions :
- i) Write the difference between water and Air Cooling method. [2]
  - ii) Name any four pollutants emitted by diesel engine. [2]
  - iii) Write short note on Flame (Halide) leak detector. [2]
- B) Explain construction and working of three way catalytic converter used in Automobile to control exhaust emission. [4]
-