

--	--	--	--	--

Time : 2 Hours**AUTOMOBILE ENGINEERING-II****Subject Code**

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

Total No. Of Questions : 5**(Printed Pages : 4)****Maximum Marks : 50**

INSTRUCTIONS : (i) Answer each question on a fresh page.

(ii) Write the number of each question and sub-question clearly.

(iii) *All* questions are compulsory.

(iv) Figures to the right indicate full marks.

(v) Illustrate your answer with neat labelled diagrams wherever necessary.

1. (A) Answer the following questions in *one* sentence each :

(i) What is the use of a vent in two wheeler petrol tank ? 1

(ii) How is the oil pressure at delivery in a gear pump controlled ? 1

(iii) What does the air supply system of a diesel engine consist of ? 1

- (iv) How is the idling speed adjusted in a simple carburettor ? 1
- (v) What is the purpose of an atomiser in a diesel engine ? 1
- (vi) Why are viscosity index improvers added to lubricating oils ? 1
- (B) Explain the construction and working of an electronic petrol injection system. 4
2. (A) Answer the following questions :
- (i) Explain the working of a CNG fuel system. 2
- (ii) State the functions of the following parts in an air cooling system :
- (a) Fins 1
- (b) Fan 1
- (iii) Name any *four* diseases caused due to automobile exhaust emissions. 2
- (B) Draw a neat labelled diagram of an electronic leak detector and explain how it is used to detect refrigerant leakages in an automobile air-conditioning system. 4
3. (A) Answer the following questions :
- (i) Explain the working of an oil pressure warning light. 2

- (ii) State the *four* advantages of an electrical fuel pump. 2
- (iii) Write the functions of the following parts used in LPG fuel system :
- (a) Converter-regulator 1
- (b) Tank. 1
- (B) With a neat labelled line diagram of a common rail diesel injection system, explain its working. 4
4. (A) Answer the following questions :
- (i) State any *four* points of comparison between petrol injection system and carburettor system. 2
- (ii) Explain the working of a pressure cap used in the radiator of the water cooling system. 2
- (iii) State *one* function each of the following components used in an automobile air-conditioning system :
- (a) Compressor 1
- (b) Evaporator. 1
- (B) (i) Draw a neat labelled sketch of a plunger type lubricating pump. 2
- (ii) State any *four* advantages of synthetic lubricants. 2

5. (A) Answer the following questions :

(i) State any *four* points on the maintenance of diesel injection system. 2

(ii) Explain the process of air-cleaning in a heavy duty type air cleaner. 2

(iii) Name any *four* parts of a forced circulation type of water cooling system. 2

(B) Explain the construction and working of a charcoal canister. 4