Instructions: (1) All questions are compulsory.
(2) Figures to the right indicate full marks of the question.
(3) Draw neat sketch wherever it necessary.
(4) Assume suitable additional data, if required.

1 (a) State the difference between Diesel Engine and Petrol Engine. 8

(b) State comparison of wet and dry linear of cylinder with neat sketch. 6

OR

1 (a) Why two compression ring and single oil ring on piston? 5

(b) What is knocking and supercharging? 5

(c) What are the functions of piston? 4

2 (a) Explain the construction and working of fuel pump. 8

(b) Explain the diesel engine fuel system. 6

OR

2 (a) Explain the different types of combustion chambers with neat sketch and application. 8

(b) Explain the step by step procedure of cleaning of the filter. 6
3 (a) Explain in details the sliding mesh gear box.  
(b) Write a short note on automobile power transmission system.

OR

3 (a) List out the main component of the automobile electric system.  
(b) Draw the wiring diagram of ignition circuit system.

4 (a) What are the stages of types of inflation and causes of tyre wear?  
(b) Explain the front axle with neat sketch.

OR

4 (a) What is the steering system and explain it's important part with linkage diagram?  
(b) What is wheel alignment and factors of wheel alignment?

5 (a) Explain uses and limitation of foam.  
(b) Write short notes:  
   (i) Different types of foam systems  
   (ii) Synthetic foam concentrates.

OR

5 (a) Explain the types of casing utilized in centrifugal pump.  
(b) Difference between centrifugal pump and reciprocating pump.