PART- A
(Answer all questions. Each question carries 2 Marks)

1. What is meant by Stroke volume?
2. Mention the characteristics of DOHC?
3. What are the functions of oil pan?
4. Compare AC mechanical and SU electrical fuel pump.
5. What do you meant by Stoichiometric ratio?
6. State the advantages of MPFi engines.
7. Name the cold starting devices used in Diesel engines.
8. Write short note on Flex fuel engines.
9. What are the requirements of a good cooling system?
10. What is meant by Mist lubrication?

(10 x 2 = 20 Marks)

PART- B
(Answer any one question from each Module. Each question carries 20 Marks)

MODULE – 1

11. With neat sketches explain various types of valve actuating mechanisms used in IC engines.
12. With the help of neat sketches write the constructional details of
   (a) Cylinder Block
   (b) Piston Rings.
   (c) Flywheel.

**MODULE – 2**

13. With the help of various circuit diagrams explain the working of a Solex Carburetor.
14. (a) Explain various types of Air filters used in Petrol engines.
    (b) Explain the working of a SU Carburetor.

**MODULE – 3**

15. With the help of neat sketches explain the working of a diesel injection pump.
16. (a) What are the characteristics of CRDi Engines?
    (b) Discuss various types of fuel filters used in diesel engines.

**MODULE – 4**

17. Explain with neat sketches various types of cooling systems used in automobiles.
18. Explain the various types of Lubrication systems used in IC engines.

\[(4 \times 20 = 80 \text{ Marks})\]