# Model question paper

## FOURTH SEMESTER B.TECH DEGREE EXAMINATION

(2013 Scheme)

# 13.403 Auto Power Plant (U)

Time: 3 Hours Max. Marks: 100

#### 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?

 $(10 \times 2 = 20 \text{ Marks})$ 

### 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.

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- 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.

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