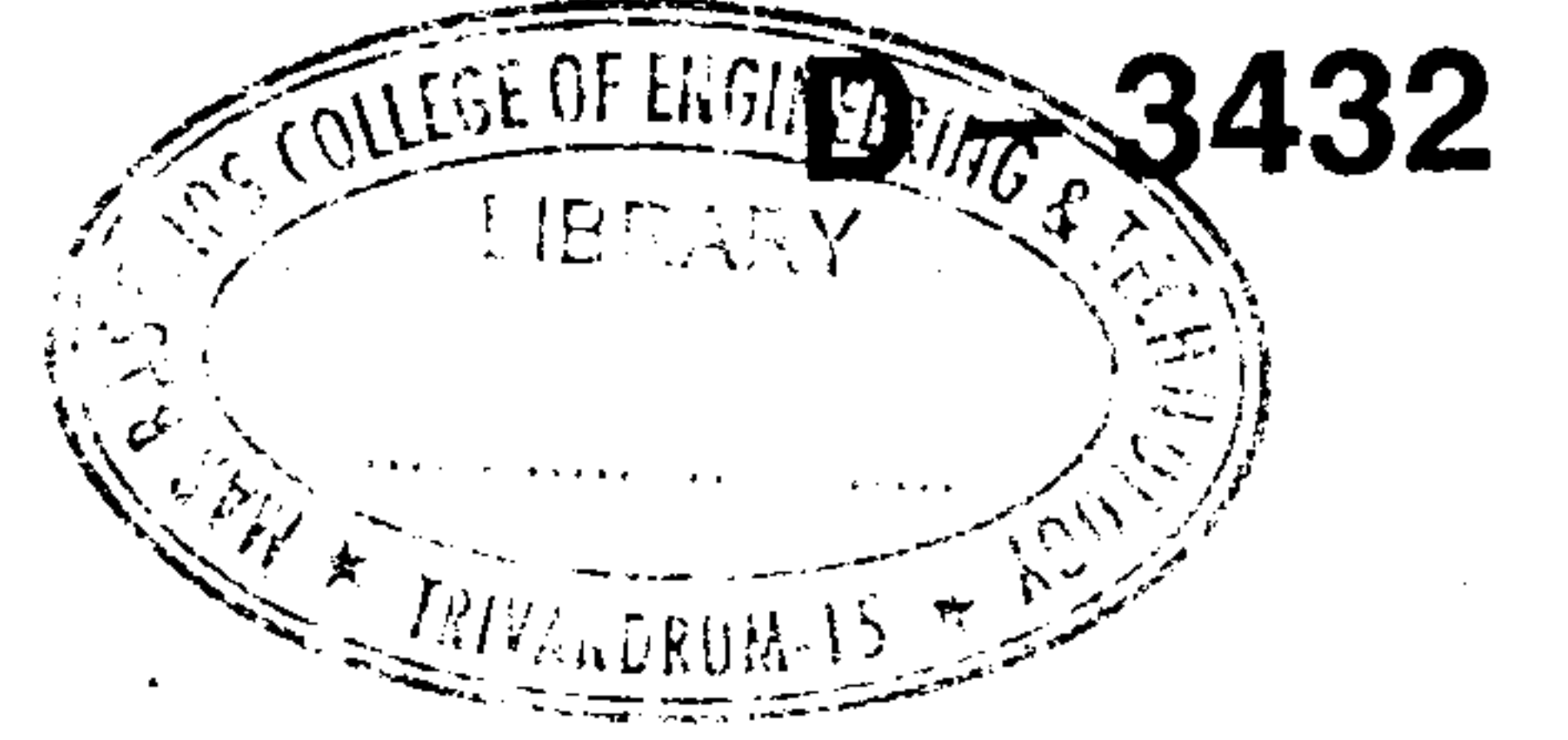




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Reg. No. : .....

Name : .....

**Eighth Semester B.Tech. Degree Examination, December 2017**  
**08.803 : AUTOMOBILE ENGINEERING (M)**  
**(2008 Scheme)**

Time : 3 Hours

Max. Marks : 100

- Instructions :**
- 1) **Each** question in Part – A carries 4 marks. **All** question in Part – A are **compulsory**.
  - 2) **Each** question in Part – B carries 20 marks. Answer **any one** question from **each** Module in Part – B.
  - 3) Draw **neat** sketches **wherever** possible.

**PART – A**

1. What are the functions of piston rings to perform an engine ?
2. Briefly explain the difficulties in the operation of Carburetors.
3. What are the functions of lubrication systems ?
4. What are the requirements of fuel injection systems ?
5. Differentiate between a centrifugal and semi centrifugal clutches.
6. Describe the principle of slip joints.
7. What are advantages of automatic transmission ?
8. List out the main troubles of brakes and their causes.
9. What is the necessity of power steering ?
10. What should be the properties of an automobile wheels ? **(10×4=40 Marks)**

P.T.O.



## PART – B

**Module – I**

11. a) Describe the methods of expansion control in piston. 10  
b) Sketch and describe the thermo siphon system of cooling. 10

OR

12. a) Describe how an electrical fuel pumps work. 10  
b) Draw a neat diagram of fuel injector and name its different parts. 10

**Module – II**

13. a) Describe the working of a torque convertor, how does it work as a fluid coupling? 12  
b) What is a propeller shaft? Sketch a propeller shaft and name its different parts. 8

OR

14. a) Describe the working of full floating axles. 10  
b) Explain with a neat sketch the electric circuit of the overdrive control. 10

**Module – III**

15. a) Describe the construction and working of hydraulic brakes. 10  
b) Explain with a neat sketch the working of cam and roller steering gear. 10

OR

16. a) With the help of a diagram. Explain the working of automobile air-conditioning system. 10  
b) Explain with a neat sketch the working of air suspension systems. 10

**(3×20=60 Marks)**  

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