



Reg. No. :

Name :

**Eighth Semester B.Tech. Degree Examination, April 2014
(2008 Scheme)**

08.803 : AUTOMOBILE ENGINEERING (M)

Time : 3 Hours

Max. Marks : 100

- Instructions :**
- 1) **Each** question in Part – A carries 4 marks. **All** questions 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. How do you classify automobiles in general ?
2. Describe various types of pistons.
3. What are the properties of braking fluid ?
4. What is the function of recirculating ball in steering system ?
5. With the help of a line diagram explain a sliding mesh gear box.
6. With the help of neat sketches explain the following terms.
 - a) Camber
 - b) King pin inclination.
7. Explain MacPherson strut assembly.
8. Discuss mist lubrication system.
9. Explain automobile air conditioning.
10. Explain the constructional details of a vehicle tyre.



(10×4=40 Marks)

**PART – B****Module – I**

11. a) Discuss the requirement of cooling system.
b) Explain the working of side cam shaft and overhead cam shaft types of valve actuating mechanisms.
12. a) Differentiate between MPFI and CRDI systems.
b) Explain the working of bendix drive starting mechanism.

Module – II

13. a) Describe the working of multiple plate wet clutch. Give its advantages and limitations.
b) What are the merits and demerits of front wheel drive system ?
14. a) Explain the working of semi automatic gear box.
b) Distinguish between semi floating and three quarter floating type of rear axles.

Module – III

15. a) With the help of a neat sketch, explain a tandem master cylinder.
b) Explain the working of air brake system. Give its advantages, disadvantages and precautions needed.
16. a) What are the benefits of power steering ? Explain electronic power steering system.
b) Explain construction of chassis and frame.

(20×3=60 Marks)