

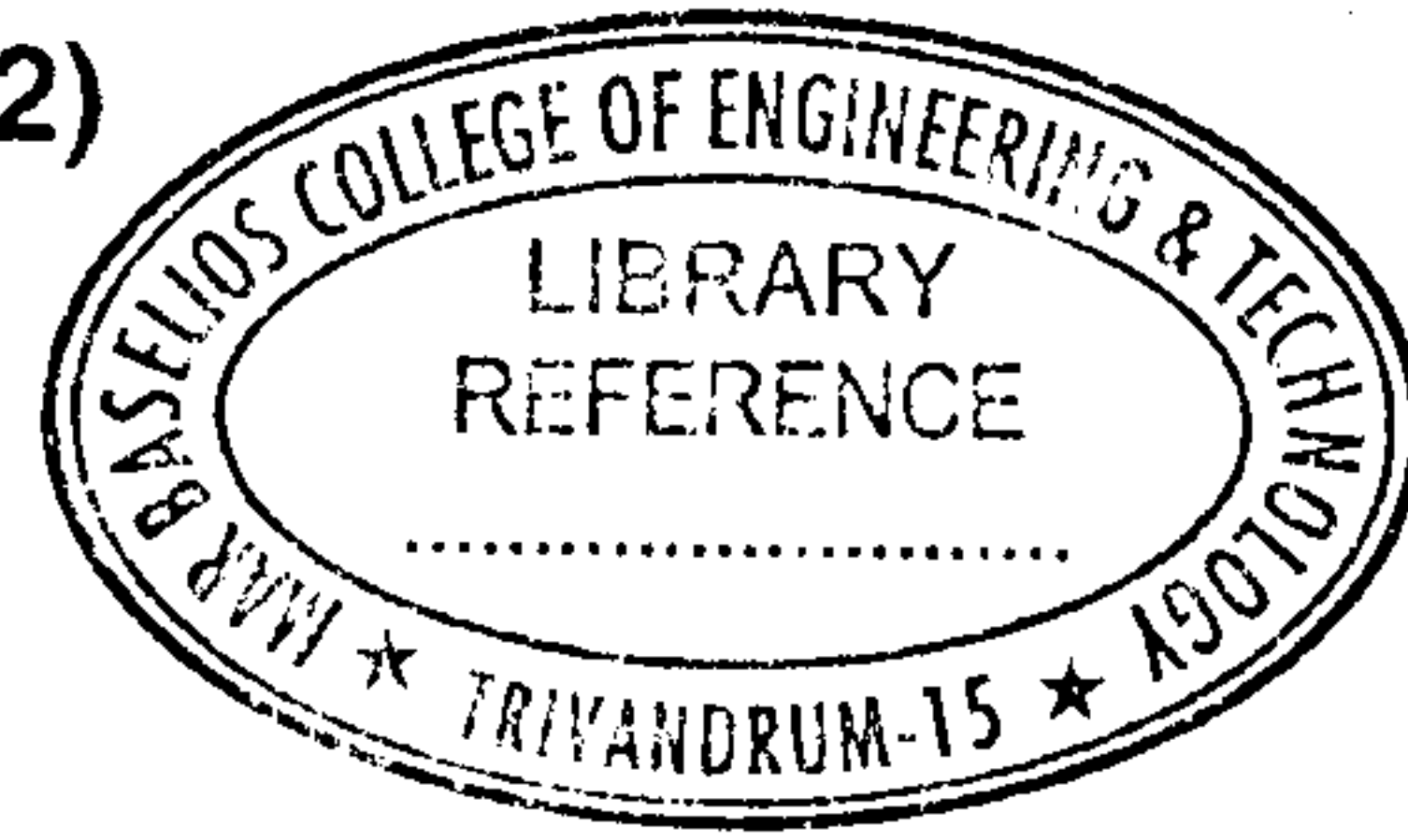


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C - 2360

Reg. No. :

Name :



**Eighth Semester B.Tech. Degree Examination, May 2017
(2013 Scheme)**

13.803 : AUTOMOBILE ENGINEERING (M)

Time : 3 Hours

Max. Marks : 100

PART - A

Answer **all** questions. **Each** question carries **2** marks.

(10×2=20 Marks)

1. State the purpose of connection rod ?
2. What is the use of catalytic convertor ?
3. How the over head valve and side cam mechanism are differentiated ?
4. State the purpose of cut out relay.
5. What is the purpose of ignition timing ?
6. What is the use of pressure plate in clutch ?
7. State the need of differential mechanism in an automobile.
8. Differentiate between live and dead axles.
9. State the function of steering gears.
10. Write the advantages of tubeless tyre over tubed tyre.

PART - B

Answer **any one** question from **each** module. **Each** question carries **20** marks.

Module - I

11. a) With neat line diagram explain the working of four stroke petrol engine. **10**
- b) Explain the working of fuel cell and list out its advantages over other alternate fuel. **10**

P.T.O.



12. a) What is the requirement of cooling system in an IC engines ? Explain in detail about the water cooling system. 10
- b) What is CRDI ? Explain in detail with relevant sketch. 10

Module – II

13. a) Discuss the construction and working of starter motor. 10
- b) With neat sketch explain the Battery ignition system. 10
14. a) Explain the working of alternator. 8
- b) With neat diagram explain the working of wiper mechanism of a vehicle. 12

Module – III

15. a) With neat sketch, explain the working principle of synchromesh gear box. 12
- b) Explain in detail about Non-slip differential. 8
16. a) What is the need of clutch, Explain briefly about the working of single plate clutch. 10
- b) Describe the construction and working of an synchromesh Gear box. 10

Module – IV

17. a) Draw and explain the working of steering geometry. 10
- b) Draw and explain the working of Hydraulic brake system. 10
18. a) Write in detail about
- i) Shock absorber
 - ii) Anti locking brake system
 - iii) Ply rating of tyres. 12
- b) Differentiate drum and disc brake. Write the merits and de-merits of disc brake. 8