



Reg. No. : .....

Name : .....

**Eighth Semester B.Tech. Degree Examination, November 2015  
(2008 Scheme)  
08.803 : Automobile Engineering (M)**

Time : 3 Hours

Max. Marks : 100

**Instructions :** Answer **all** questions from Part – A. **Each** question carries 4 marks. Answer **any one full** question from **each** Module of Part – B. **Each** question carries 20 marks.

**PART – A**

1. What are the advantages of multi-cylinder engines ?
2. What are the functions of cylinder head in an engine ?
3. Why diesel engines are more efficient than petrol engine ?
4. Give a block diagram of diesel engine fuel circuit.
5. What are the functions of a clutch ?
6. What is a universal joint ? Where it is used ?
7. What are the advantages of overdrive ?
8. Differentiate over steering and understeering.
9. Draw the cross-section of an automobile tyre and show the features.
10. Explain hybrid vehicles.



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**PART – B****Module – I**

11. a) Classify automobile power units based on cylinder arrangements.
- b) What is the necessity of cooling system. Explain with neat sketch pressurized cooling system in an automobile

OR

12. a) Explain CRDI system adopted in an automobile what are its advantages.
- b) Explain with a neat sketch the working of magneto coil ignition system.

**Module – II**

13. a) With the help of a neat sketch explain the working of single plate dry clutch.
- b) Describe the principle of torque convertor. List the merits and demerits.

OR

14. a) Explain the working of a non-slip differential employed in an automobile.
- b) What is a free wheeling unit ? How does it work ? What are its advantages.

**Module – III**

15. a) Explain the working of master cylinder in hydraulic braking system.
- b) Describe with sketch the working of an independent suspension system.

OR

16. a) What do you understand by charge stratification. Explain the working of a stratified charge engine.
- b) Explain the common method adopted to control the exhaust pollution from an automobile ? State the limitations.

