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**SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR**  
(AUTONOMOUS)

**B.Tech III Year I Semester Regular Examinations November/December 2018**

**AUTOMOBILE ENGINEERING**

(Mechanical Engineering)

Time: 3 hours

Max. Marks: 60

(Answer all Five Units **5 x 12 = 60** Marks)

**UNIT-I**

- 1 a Explain the direct injection type combustion chamber in C.I Engine 6M  
b List & Explain the different types of Combustion Chamber in C.I Engine 6M

**OR**

- 2 a List out the components of I.C engine and its function 7M  
b Explain in detail with neat sketch about Rear wheel drive in Automobile engine 5M

**UNIT-II**

- 3 a Explain the fuel supply system in diesel engine with line diagram 7M  
b Explain the working of turbocharging with a neat sketch 5M

**OR**

- 4 a Explain the working of turbocharging with a neat sketch 7M  
b Discuss the effects of emissions on human health 5M

**UNIT-III**

- 5 What are the different types water cooling systems used in an automobile? Explain any one of it with neat diagram 12M

**OR**

- 6 a Explain the grading phenomena of Lubricant. 7M  
b What is the function of Engine Lubrications. 5M

**UNIT-IV**

- 7 Explain in details about Universal Joint with neat diagram. 12M

**OR**

- 8 Explain in details about Differential used in automobile with neat diagram. 12M

**UNIT-V**

- 9 a Explain in detail about Vacuum Braking system with neat sketch 7M  
b Discuss about shock absorber in detail 5M

**OR**

- 10 a Discuss clearly how the Pneumatic braking system works. 7M  
b Explain about Torque Bar 5M

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