



INSTITUTE OF AERONAUTICAL ENGINEERING

(Autonomous)

Dundigal, Hyderabad -500 043

MECHANICAL ENGINEERING

ASSIGNMENT QUESTIONS

Course Name	:	AUTOMOBILE ENGINEERING
Course Code	:	A62405
Class	:	III B. Tech II Semester
Branch	:	Mechanical Engineering
Year	:	2017 – 2018
Course Faculty	:	Mr. G. Sarat Raju, Associate Professor Mr. A. Anudeep Kumar, Assistant Professor

COURSE OVERVIEW:

This course is intended to introduce structural and operational details of automobile and its systems. Major systems are fuel supply, cooling, ignition, electrical, transmission, suspension, braking and steering. Transport of personnel and goods play an important role in the economy of country and standard of living. So the man power is required to manufacture and maintain all these vehicles. After completion of this course the students gains adequate knowledge either to work in manufacturing or maintenance sector of automobiles.

S. No	Question	Blooms Taxonomy Level	Course Outcome
ASSIGNMENT-I			
1	a. Explain piston rings function, materials, number of rings clearly. b. Draw and Explain pressure lubrication system?	Remember	1
2	a. How A.C mechanical pump pumps the fuel ? b. Explain the working of nozzle and different types of nozzle.	Remember	1
3	a. What is spark advance? b. Describe magneto ignition system with sketch?	Understand	1,2
4	a. Explain the principle of electrically operated oil pressure guage. b. Explain starting motor wiring circuit using a solenoid shift with relay.	Remember	1,2
5	a. How clutch can be operated electromagnetically? b. Explain working of a synchro mesh gear box with sketch.	Understand	1, 3
ASSIGNMENT-II			
1	a. Explain taper lite spring with a neat sketch. b. What are the objectives of employing suspension on an automobile?	Understand	1, 3
2	a. What is brake adjustment? When is it required? b. Sketch and explain the construction and working of Ackermann steering mechanism.	Remember	1,4
3	a. How worm and wheel steering gear mechanism works? b. Describe steering linkage for vehicle with independent front suspension.	Understand	1,4

4	a. Explain vacuum advance method in automatic ignition advanced method? b. Explain the two types of techniques for treating the exhaust gases to reduce the pollutants?	Understand	1, 5
5	a. What are the advantages of L.P.G? b. How common rail fuel injection system in Diesel engines works.	Remember	1, 5

Prepared by:

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