



College of Engineering Pune

(An autonomous Institute of Government of Maharashtra)

SHIVAJI NAGAR, PUNE – 411005

END Semester Examination

Automobile Engineering

(ME-405-3)

Course: BTech (4th)

Semester: VII

Year: 2014-2015

Duration: 3 hours

Branch: Mechanical Engineering

Max. Marks: 60

Time: 2 to 5 p.m. Date:

27/11/2014

MIS No.

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Instructions:

1. Figures to the right indicate full-marks.
2. Mobile phones and programmable calculators are strictly prohibited.
3. Writing on question paper is not allowed.
4. Exchange/sharing of anything like stationary, calculator, etc. is not allowed
5. Assume suitable data if necessary.
6. Write your MIS No. on the question paper.
7. Attempt any four of Q-1, Q-2, Q-3, Q-4, and Q-5
8. Q-6 is compulsory.

Q-1(a)	Explain the construction and working of multi-plate clutch with neat sketch.	6
Q-1(b)	What are the factors controlling the stopping of vehicle with brake?	6
Q-2(a)	Describe the constant velocity joint with figure of each part in the joint with its roll.	6
Q-2(b)	Differentiate Battery ignition system and magneto ignition system	6
Q-3(a)	Explain the constant mesh gear box	6
Q-3(b)	Explain the wishbone suspension system	6
Q-4(a)	Explain the detail nomenclatures of tyre	6
Q-4(b)	Explain the rack-pinion type steering gear box	6
Q-5 (a)	Explain the working of differential gear box	6
Q-5 (b)	Explain the Factors affecting establishment of arc across the air gap of spark plug	6
Q-6(a)	Explain working principle of sliding caliper disc brake.	3
Q-6(b)	Why hydraulic brakes are preferred in the vehicle?	3
Q-6(c)	What are the advantages of torque tube drive?	3
Q-6(d)	What are the parameters need to be tested to ensure good steering system .	3