

Reg. No. :

--	--	--	--	--	--	--	--	--	--

Question Paper Code: 31574

B.E. / B.Tech. DEGREE EXAMINATION, MAY 2016

Fifth Semester

Mechanical Engineering

01UME504 – AUTOMOBILE ENGINEERING

(Regulation 2013)

Duration: Three hours

Maximum: 100 Marks

Answer ALL Questions

PART A - (10 x 2 = 20 Marks)

1. List the functions of a frame.
2. What are all the functions of carburetor?
3. What is an electronic ignition system?
4. Why the turbo chargers are used in diesel engines?
5. Enumerate the functions of a gear box.
6. What does the over drive means?
7. What is meant by steering gear?
8. Classify the rear axle types.
9. List any four advantages of the biodiesel.
10. Enumerate the important components of LPG engine setup.

PART - B (5 x 16 = 80 Marks)

11. (a) What are all the different types of automobile frames? Explain any two types. (16)

Or

(b) Explain working of the pressure lubrication system with neat sketch. (16)

12. (a) Explain the construction and working of three way catalytic convertor with neat sketch. (16)

Or

(b) Draw neatly and indicate the important components of the lead-acid battery. Also explain its working. (16)

13. (a) With required sketches explain the functioning of the constant mesh gearbox for four different speeds. (16)

Or

(b) What is the need for differential unit? Explain with neat sketch the principle and working of the differential unit. (16)

14. (a) List the different types of steering gear boxes. Explain the working of re-circulating type steering system. (16)

Or

(b) What is meant by ABS? Explain the principle of working of ABS with required sketches. (16)

15. (a) Write short notes on

(i) Fuel cell (8)

(ii) Hydrogen fueled engine (8)

Or

(b) Explain briefly the working of series and parallel hybrid vehicle. (16)
