B.TECH. SEM -VII MECHANICAL 2014 COURSE (CBCS) :
SUMMER - 2018
SUBJECT: AUTOMOBILE ENGINEERING

Day : **Wednesday** Time: **02.30 PM TO 05.30 PM**
Date : **23/05/2018** **S-2018-2516** Max. Marks: 60

N.B.:

1) All questions are **COMPULSORY**.
2) Figures to the right indicate **FULL** marks.
3) Draw neat and labeled diagram **WHEREVER** necessary.
4) Assume suitable data if necessary.

Q.1 Explain front engine front wheel drive chassis layout. Compare it with front engine rear wheel drive layout. **[10]**

OR

Sketch a chassis of any four wheelers and mark various parts on it and state function of each.

Q.2 Explain how the wheel alignment and its balancing is performed in service station. **[10]**

OR

What is an epicyclic gear box? Describe its principle and working with the help of neat sketch.

Q.3 Explain ABS (Antilock Braking System) in detail. Also state its advantages over hydraulic brake system. **[10]**

OR

Explain air brake system in detail. Also state its advantages over hydraulic brake system.

Q.4 Distinguish between independent suspension and conventional suspension system. **[10]**

OR

What are the types of tyres and rim? Also explain importance of inflation pressures.

Q.5 **a)** State different types of batteries. Explain any one with neat sketch. **[05]**
b) Explain starting system used in automobile vehicle. **[05]**

OR

Explain construction and working of alternator with neat sketch. **[10]**

Q.6 Write short note on: **[10]**
a) Hot wire and thin film air flow sensors
b) Air management system

OR

Write short note on:
a) Electronic spark control
b) Rain sensor

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