

Total No. of Questions : 6]

SEAT No. :

P5890

[Total No. of Pages : 2

BE/INSEM/OCT. - 520
B.E. (Mechanical)
Automobile Engineering
(2015 Pattern) (Elective - II)

Time : 1 Hour]

[Max. Marks :30

Instructions to the candidates:

- 1) *All questions carry equal marks.*
- 2) *Neat diagrams must be drawn wherever necessary.*
- 3) *Figures to the right indicate full marks.*
- 4) *Use of electronic pocket calculator is allowed.*
- 5) *Assume suitable data, if necessary.*

- Q1)** a) Explain the current scenario in Indian Automobile/ancillary industries. **[5]**
- b) Explain the various section used for side members and cross members of Chassis Frame. **[5]**

OR

- Q2)** a) Explain the purpose with neat sketch of Synchronizer and its operation in a gear box. **[5]**
- b) Explain with the neat sketch of Overdrive and also show its freewheel. **[5]**
- Q3)** a) Differentiate between dead axle and live axle. **[5]**
- b) Define with neat sketch the following terms related to steering geometry. Also write its effect on : **[5]**
- i) Caster
 - ii) Camber

OR

P.T.O.

Q4) a) List out the types of Carcass tyres and explain any one with neat sketch of it. [5]

b) Explain the factors which affect the performance of Vehicle. [5]

Q5) a) Explain with the neat sketch of Self leveling Suspension system. [5]

b) Explain with the neat sketch of Vacuum Servo Brake system. [5]

OR

Q6) a) List out the Front Independent Suspension system and explain any one with neat sketch. [5]

b) Explain with neat sketch of Hand Brake. [5]

