Total No. of Questions : 10]

SEAT No. :

P2231

[Total No. of Pages : 3

[5254]-562
B.E. (Automobile) (Semester - II)
AUTOMOTIVE CHASSIS & SYSTEMS
(2012 Pattern)

Time : 2½ Hours] *[Max. Marks : 70*

Instructions to the candidates:

1) ***Answer Q1 or Q2, Q3 or Q4, Q5 or Q6, Q7 or Q8 and Q9 or Q10 is compulsory.***

2) ***Neat diagrams must be drawn whenever necessary.***

3) ***Figures to the right side indicate full marks.***

4) ***Use of logarithmic tables slide rule, mollier charts, electronic pocket calculator and tables is allowed.***

Q1) a) Explain the functions of front axle and types of front axle. **[6]**

b) What are the types of suspension systems? Discuss any one. **[4]**

OR

Q2) a) Define following with neat sketch. **[6]**

i) Roll Centre

ii) Castor

iii) King pin inclination

b) Explain basic requirements of wheels and tyres. **[4]**

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Q3) a) Discuss cross ply and radial ply tyre with constructional details. **[6]**

b) Explain the types and characteristics of leaf spring. **[4]**

OR

Q4) a) What is need of shock absorber? Explain operating principle. **[6]**

b) Explain tyre retreading (hot and cold)and factors affecting tyre performance. **[4]**

Q5) a) What are the requirements of braking system and explain drum brake arrangement with neat sketch. **[8]**

b) Explain disk brake with the help of neat sketch. Also give advantages.**[10]**

OR

Q6) a) Explain vacuum servo assisted brake in details. **[8]**

b) Draw layout of hydraulic brake system and explain all components of hydraulic system. **[10]**

Q7) a) Write down latest trends in traffic system for improved road safety. **[8]**

b) Compare active safety and passive system with examples. **[8]**

OR

Q8) a) Explain elecronics stability program and draw simple layout. **[8]**

b) Explain types of different mirrors and their location. **[8]**

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Q9) a) Explain different types of chassis frames. **[8]**

b) Explain Causes of chassis failure. **[8]**

OR

Q10) a) Draw lay out of heavy vehicle with nomenclature. **[8]**

b) Write the manufacturing process for chassis. **[8]**

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