

**III B.Tech II Semester Supplementary Examinations, Apr/May 2006**  
**AUTOMOBILE ENGINEERING**  
( Common to Mechanical Engineering, Mechatronics and Production Engineering)

**Time: 3 hours**

**Max Marks: 80**

**Answer any FIVE Questions**  
**All Questions carry equal marks**

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1. Sketch a chassis of any four wheeler and mark various parts on it. Explain the functions of various components of automobile. [6+10]
2. (a) Explain the working of acceleration pump circuit in a modern carburetor. [8+8]  
(b) Explain the salient features of SOLEX carburetor.
3. Explain the various types of engine cooling systems and compare them. [16]
4. (a) Explain the term Modern Ignition Systems and mention the types. [8+8]  
(b) Explain with a neat sketch the working of Transistorized coil system and name the various parts.
5. (a) With a neat sketch explain the construction and working of the headlamp of an automobile. [8+8]  
(b) With neat sketch explain the construction and working of an electric horn used in automobile.
6. (a) What are the merits of multiplate clutches over single plate clutches. [8+8]  
(b) Draw a sketch of 5 – speed constant mesh type gear box when the gear is in neutral position.
7. (a) What are the objectives of suspension system. [6+4+6]  
(b) What are helper springs.  
(c) How are the leaf springs lubricated.
8. Describe the Ackermann and Davis Steering Mechanisms. What are their relative merits? [6+6+4]

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