

B.E. (Mechanical Engineering) Semester Seventh (C.B.S.) -  
**Elective - I : Automobile Engineering**

P. Pages : 2

Time : Three Hours



**KNT/KW/16/7470**

Max. Marks : 80

- Notes :
1. All questions carry marks as indicated.
  2. Solve Question 1 OR Questions No. 2.
  3. Solve Question 3 OR Questions No. 4.
  4. Solve Question 5 OR Questions No. 6.
  5. Solve Question 7 OR Questions No. 8.
  6. Solve Question 9 OR Questions No. 10.
  7. Solve Question 11 OR Questions No. 12.
  8. Due credit will be given to neatness and adequate dimensions.
  9. Assume suitable data whenever necessary.

1. a) With the help of neat explain the working of electric car and write down its advantages. **8**  
b) Enlist the various components of Chasis and brief out their functions. **6**

**OR**

2. a) What is the necessity of lubrication system in auto mobile. Explain with neat sketch dry sump lubrication system. **7**  
b) Explain with neat sketch working and construction of Solex carburetor. **7**
3. a) Explain necessity of clutch in automobile and with neat sketch write working of multiplane clutch. **7**  
b) Discuss the working of synchromesh Gear box. **6**

**OR**

4. a) Explain the need of gear box. Also discuss the working of constant mesh type gear box with neat sketch. **7**  
b) Enlist the type of Gear selector mechanism. Explain any one with neat sketch. **6**
5. a) What is differential? Explain the working of differential in Automobile. **7**  
b) With the help of neat sketch explain the working of torque tube drive. **6**

**OR**

6. a) Describe with neat sketch working of hydraulic brake system with its advantages. **7**  
b) Explain with neat sketch vaccume brakes. **6**

7. a) What are the factors affecting on the wheel alignment? Explain them in detail. 7  
b) Explain briefly working of rack and pinion steering gear with neat sketch. 7

**OR**

8. a) Explain with neat sketch Air suspension system and write its advantages. 7  
b) Explain with neat sketch working of telescopic shock absorber 7
9. a) Explain various panel board instrument display used in automobile with its importance 6  
b) With the help of neat sketch explain Automobile air conditioning system. 7

**OR**

10. a) Explain the various factors affecting Tyre life. 6  
b) Elaborate and discuss the various precautions to be taken for tyre and wheel balancing. 7
11. a) What are the body and safety consideration in automobile? Explain. 7  
b) With the help of neat sketch explain the working of electronic power steering. 6

**OR**

12. a) Explain what is active suspension system. Write its working and importance. 7  
b) Discussed in detail electronic brake distribution system used in automobile. 6

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