

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY
BE SEM-V Examination-Nov/Dec.-2011

Subject code: 150202

Date: 24/11/2011

Subject Name: Automobile Systems

Time: 2.30 pm -5.00 pm

Total marks: 70

Instructions:

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

- Q.1** (a) Explain in brief the vehicle layout for Automobiles **07**
(b) Classify automobiles according to different applications. **07**
- Q.2** (a) Explain single plate clutch with a neat figure. **07**
(b) Explain multi-plate clutch with a neat figure. **07**
- OR**
- (b) Explain Fluid flywheel with a neat figure. **07**
- Q.3** (a) Explain different types of steering gears used in steering system **07**
(b) Explain the steering system used with independent type of suspension system **07**
- OR**
- Q.3** (a) Explain the steering system used with rigid type of suspension system **07**
(b) Explain power steering **07**
- Q.4** (a) Explain the following terms: **07**
(i) Caster
(ii) Camber
(iii) Toe in & Toe out
(iv) Slip angle
(v) Cornering force
(b) Explain under steer and Over Steer with neat sketch. **07**
- OR**
- Q.4** (a) Explain synchromesh type of gear box **07**
(b) Explain torque convertor with a neat sketch **07**
- Q.5** (a) Explain over drive and transfer case **07**
(b) Explain different types of rear axle drives **07**
- OR**
- Q.5** (a) Explain the difference between radial ply and bias ply tires **07**
(b) Explain drum brakes and also the process "Bleeding in brakes" **07**
