

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-VII (OLD) EXAMINATION – WINTER 2018****Subject Code: 171902****Date: 19/11/2018****Subject Name: Automobile Engineering****Time: 10:30 AM TO 01:00 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) Define “Automobile”. Give classification of automobiles **07**
(b) Draw a layout of an automobile. State the function of main components of an automobile. **07**
- Q.2** (a) Explain the working of sliding mesh gearbox with neat sketch. **07**
(b) What are functions of clutch? What are requirements of good clutch? **07**
- OR**
- (b) Sketch and explain the working of fluid coupling. **07**
- Q.3** (a) Describe the working of hydraulic braking system with neat sketch. **07**
(b) Describe with neat sketch, Camber, Caster, Toe-in and Toe-out with respect to steering geometry. **07**
- OR**
- Q.3** (a) Explain with neat sketch the working principle of telescopic type shock absorber. **07**
(b) What are different types of safety features available in modern car? **07**
- Q.4** (a) Described with neat sketch construction and working of pressed steel disc wheel. **07**
(b) Described the importance of driving license and insurance against third party. **07**
- OR**
- Q.4** (a) With neat sketch, explain constructional features of tubed and tubeless tyres. Discuss their relative merits and demerits. **07**
(b) Write short notes on regular maintenance of a car. **07**
- Q.5** (a) Discuss functions of propeller shaft with neat sketch. **07**
(b) Explain with a neat sketch construction and working of differential. **07**
- OR**
- Q.5** (a) List out different lights used in modern car and state its purpose. **07**
(b) Describe accessories used in automobile. **07**
