

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-VII EXAMINATION – SUMMER 2016****Subject Code:170206****Date:05/05/2016****Subject Name:Two & Three Wheeler Technology (Department Elective-I)****Time:02:30 PM to 05:00 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) With the neat sketch explain constructional detail of motorcycle. **07**
(b) Explain the following basic systems for motorcycle: **07**
1. Drive train, 2. The frame, 3. Suspension, 4. Ignition
- Q.2** (a) Define scavenging? Explain any one method with neat sketch. **07**
(b) With the help of neat sketch discuss constant mesh gear box. **07**
- OR**
- (b) What is the basic difference in friction clutch and centrifugal clutch? Discuss construction and working of centrifugal clutch. **07**
- Q.3** (a) Explain the basic principle of friction type of clutch. Explain any one in details. **07**
(b) Which are the different forces experienced by the vehicle when it is in motion? Discuss in detail. **07**
- OR**
- Q.3** (a) Write down the functions of lubrication system in two wheeler. Explain any one lubrication system in detail. **07**
(b) Compare belt drive, chain drive and shaft drive with one another in detail. **07**
- Q.4** (a) Explain internal expanding shoe brake with neat sketch. **07**
(b) Discuss the single acting and double acting disc brakes with neat sketch. **07**
- OR**
- Q.4** (a) Compare battery ignition system with magneto ignition system in detail. **07**
(b) Discuss twin spar frame and back bone type frame with suitable diagram. **07**
- Q.5** (a) Discuss the different types of tires used in two and three wheelers. **07**
(b) With the help of suitable diagram discuss starting circuit of two wheelers. **07**
- OR**
- Q.5** (a) Draw a maintenance schedule chart of two and three wheelers. **07**
(b) Discuss and compare racing bike with mudd bikes. **07**
