

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

M. E. Sem. – IInd - Examination – June/July- 2011

Subject code: 1721101

Subject Name: Instrumentation & Vehicle Testing

Date: 22/06/2011

Time: 10:30 am – 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) Differentiate Precision and Accuracy. 07
(b) Explain PUC test of Petrol Vehicle. 07

Q.2 (a) Explain procedure for wheel alignment for vehicles. 07
(b) Explain function of safety air bag in automobile. 07

OR

(b) Enlist devices to measure temperature and pressure of air and fuel flow into the engine. Explain any one of them with neat sketch. 07

Q.3 (a) Explain automobile wheel balancing. 07
(b) Explain road test of an automobile. 07

OR

Q.3 (a) List warning and alarm instruments of automobile and explain any one of them with neat sketch. 07
(b) Write short note on FFT analyzer. 07

Q.4 (a) Describe components of analog data acquisition system in detail. 07
(b) Classify the methods used to measure vibrations and explain principle of any one. 07

OR

Q.4 (a) Explain black body fiber optic radiation pyrometer with neat sketch. 07
(b) Write short note on EURO standards for automobiles. 07

Q.5 (a) Explain how to test an automobile as per IS code in brief. 07
(b) Write short note on Selection and Requirement of Measuring instrument. 07

OR

Q.5 (a) Explain construction and working of stroboscope with neat sketch. 07
(b) Write short note on horn design. 07
