

**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**DIPLOMA IN MECHANICAL ENGINEERING**  
**SEMESTER- VI**

Subject Name: **Automobile Engineering Practice (Elective Practice –I)**

Subject Code: **2361930**

**NOTE:- Following are the minimum experiences required, but the college can do more experiences if possible.**

<b>LABORATORY EXPERIENCES :</b>			
<b>Experience Type</b>	<b>Experience Number</b>	<b>Description of Laboratory Experience</b>	<b>Hrs.</b>
Preparatory	01	1.Appreciate main objectives of learning this subject: a. Read/interpret given automotive arrangement drawings. b. Dismantle , assembly and align/ balance various automotive arrangements. c. Identify and rectify simple and common troubles. 2.Strengthen know how for fundamental theory of machines and thermal engineering concepts.	2
Study and demonstration	02	Various automotive systems.	4
Performance	03	Performance tests (including SFC and BHP) for petrol and diesel engines.	4
	04	Performance tests (including SFC and BHP) for gas based engine.	2
	05	Dismantling, assembly and alignment of engine, transmission , control and steering systems of any one vehicle.	6
	06	Preventive maintenance of two wheeler.	2
	07	Wheel balancing.	2
Industrial Visit	08	1. Visit at least one automotive manufacturer. 2. Visit at least one service centre.	-
Download, seminar presentation, (Copy downloaded content and seminar of whole batch In one /one set of	09	a) Prepare and present seminar individually in your batch. (Seminar topic has to be given by teacher). b) Download individually visual aids, movies, content and other related content for the given case/situation. (Case/situation has to be given by teacher)Present and discuss the same in your batch. c) Each student should prepare and present one real case which focus on troubles and remedies.	6

CD/DVD)			
Assignments (Home Assignment)	10	Solve the given tutorials and assignments. One assignment must be on preparation of chart / diagram / poster / graph / drawing / etc on half imperial size of drawing sheet.(For subject AIE).	-

**Notes:**

**A. FOR STUDENTS.**

- a. It is advised that student download this copy of syllabus and plan to achieve the objectives of learning this subject.
- b. Attach copy of syllabus as part of term work.

**B. FOR STUDENTS AND SUBJECT TEACHER/S.**

- a. Term work report content of each experience should also include following.
  - i. Experience description / data and objectives.
  - ii. Skill/s which is / are expected to be developed in student after completion of experience.
  - iii. Steps / procedure to execute experience.
- b. Term work report of student of regular mode should exclude Distance Learning manual, photocopies, printed content(except visual aids), etc. Focus should be on developing the termwork as original efforts of students.
- c. Term work content of industrial visit report should also include following.
  - i. Brief details of industry visited.
  - ii. Type ,location, products, rough layout, human resource, etc of industry.
  - iii. Details, description and broad specifications of machineries/ processes observed.
  - iv. Safety norms and precautions observed.
  - v. Student's own observation on Industrial environment, productivity concepts, quality consciousness and quality standards, cost effectiveness ,culture and attitude.
  - vi. Any other details / observations asked by accompanying faculty.
- d. Term work should also include experience logbook duly certified by subject teachers.
- e. Term work is to be defended (along with term work) with practical examination by external and internal examiners .Practical examination will include followings:
  - i. Viva
  - ii. Interpret/read given simple automotive system.
  - iii. Dismantle/assemble/align given automotive case.

**Reference Books:**

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|---------------------------|---------------------------------|
| 1. Automobile Engineering | R.K.Rajput (Laxmi Publications) |
| 2. Automobile Engineering | KIRPAL SINGH                    |