



# INSTITUTE OF AERONAUTICAL ENGINEERING

(Autonomous)

Dundigal, Hyderabad -500 043

## MECHANICAL ENGINEERING

### ASSIGNMENT

Course Name	:	ENGINEERING METROLOGY
Course Code	:	A50318
Class	:	III B.Tech I Semester
Branch	:	Mechanical Engineering
Year	:	2017 – 2018
Course Coordinator	:	Mr. M. Sunil Kumar, Assistant Professor.
Course Faculty	:	Mr. M.Sunil Kumar, Assistant Professor, Mr. V. Mahidhar Reddy Assistant Professor.

### OBJECTIVES

To meet the challenge of ensuring excellence in engineering education, the issue of quality needs to be addressed, debated and taken forward in a systematic manner. Accreditation is the principal means of quality assurance in higher education. The major emphasis of accreditation process is to measure the outcomes of the program that is being accredited.

In line with this, Faculty of Institute of Aeronautical Engineering, Hyderabad has taken a lead in incorporating philosophy of outcome based education in the process of problem solving and career development. So, all students of the institute should understand the depth and approach of course to be taught through this question bank, which will enhance learner's learning process.

S No	QUESTION	Blooms taxonomy level	Course Outcomes
ASSIGNMENT - I			
1	Why it is necessary to give tolerance on engineering dimension.	Remember	2
2	What is selective assembly.	Remember	1
3	Explain with a neat sketch, the construction and working of a Bevel Protractor.	Analyze	4
4	Explain with a neat sketch the Calibration of the Dial Indicator?	Remember	3
5	How many different dimensional measurements can be done on a tool maker's microscope. Discuss.	Remember	5
ASSIGNMENT - II			
Part - A (Short Answer Questions)			
1	Explain how to measure the pitch of External threads. Draw neat diagrams.	Understand	5
2	Explain the following terms with importance i) Lay                      ii) Ra                      iii) Sampling length	Understand	8
3	Explain the utility of straight edge and surface plate in laboratories.	Remember	7
4	Discuss with sketch the following tests a) Spindle center run out                      b) Cross slide alignment	Remember	13
5	Explain the constructional features and working of sigma mechanical comparator with a neat sketch.	Understand	12

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