INSTITUTE OF AERONAUTICAL ENGINEERING

Dundigal, Hyderabad -500 043

MECHANICAL ENGINEERING

ASSIGNMENT

Course Name	:	**PRODUCTION TECHNOLOGY**
Course Code	:	A40312
Class	:	II B. Tech II Semester
Branch	:	Mechanical Engineering
Year	:	2014 – 2015
Course Faculty	:	Dr K. G. K. Murthi, Professor & T.Vanaja, 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 Outcome
	Assignment – I		
1	a) Define a mould. Make a sketch of a mould and identify its different elements. b) What are the basic requirements of a mould? Name different mould materials.	knowledge	3,4 1,5
2	a) Name different types of patterns. Explain with neat sketch about split pattern and discuss its use. b) Discuss: (i) sweep pattern (ii) gated pattern	comprehension	1,2,3
3	a) Discuss shielded metal arc welding process with a neat sketch. b) Explain the advantages and disadvantages of shielded metal arc welding.	comprehension	4,5 1,4
4	a) Discuss electric resistance spot welding process. Explain nugget formation. b) Discuss parameters used in resistance spot welding process. Give the industrial applications of spot welding process.	comprehension	1,3,4 2,4,5
5	a) What are three main types of metal transfer that can occur during arc welding? Explain with neat sketch. b) Discuss some of the attractive features of gas tungsten arc welding process. What are the various gases used in this process.	Knowledge comprehension	3,4 1,2,3
	Assignment – II		
1.	a) What is LASER welding? Give applications. b) Explain brazing and soldering process.	Knowledge comprehension	3,4 1,5

S. No	Question	Blooms Taxonomy Level	Course Outcome
	Assignment – I		
2.	a) What are the types of rolling processes? What products are made by rolling processes? b) How do you find force and power requirement for rolling processes?	knowledge	1,2,3
3.	a) Discuss types of presses and press tools. b) How do you find the force requirement in drawing?	Comprehension knowledge	4,5 1,4
4.	a) What are the advantages of hydrostatic extrusion? b) Explain manufacture of seamless tubes by extrusion process.	Knowledge comprehension	1,3,4 2,4,5
5.	a) Differentiate between drop forging and press forging. b) Compare open die and closed die forging.	Comprehension analysis	3,4 1,2,3

Prepared by: Dr K. G. K. Murthi, Professor, T.Vanaja, Assistant Professor

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