

Subject Code: H1505/R13

M. Tech –II Semester Regular/ Supply Examinations, October, 2015

**DESIGN FOR MANUFACTURING
(Common to MD and MED)**

Time: 3 Hours

Max Marks: 60

**Answer any FIVE questions
All questions carry EQUAL marks**

1. Draw the schematic diagram of the basic elements of a design process and explain them briefly.
2. Enumerate design rules and guidelines applicable to dimensional tolerances of various machining processes. What is design for machining?
3. What are general design considerations for casting processes with respect to
 - a) Economical molding
 - b) Solidification
 - c) Surface integrity
 - d) Fettling and cleaning
4. (a) Explain the chief factors in the design of a weldment.
(b) With a neat sketch explain design of closed die forging design and drop forging die design?
5. (a) Elaborate various design guidelines for various extrusion processes.
(b) Enumerate the design considerations for injection molding.
6. (a) Discuss the guidelines for design for manufacture.
(b) Classify various manufacturing process.
7. (a) Enumerate design rules and guidelines applicable to casting tolerances.
(b) Explain the design considerations of for weldments.
8. Explain the following operations with their applications?
 - a) Punching
 - b) Bending
 - c) Blanking
 - d) Deep Drawing
