

**SUBJECT CODE NO:-8031**  
**FACULTY OF ENGINEERING AND TECHNOLOGY**  
**M.E.(Mechanical) Examination Nov/Dec 2015**  
**Advanced Manufacturing Techniques**  
**(Revised)**

[Time:ThreeHours]

[Max. Marks: 80]

“Please check whether you have got the right question paper.”

- N.B            i) Q.No.1 from section A and Q.No.5 from section B are compulsory.  
                  ii) Solve any two questions from Q.no 2 to Q.no 4 in Section A and any two Questions from Q.no 6 to Q.no 8 in section B

Section A

- Q1.            Solve any three questions of the following 18  
                  a) What are the technical parameters affecting lapping process?  
                  b) What is deburring? Why it is to be done and what are the methods of deburring process?  
                  c) What are the rapid tooling methods for casting process?  
                  d) Explain the design for plaster mould casting.
- Q.2 a) What are the guidelines for improving casting design 06  
                  b) Explain benchmarking of RP and T routes for casting applications 05
- Q.3 a) How process and planning and cost estimation for casting is done? 06  
                  b) How tool life and tool temperature is calculated? How to improve the tool life of cutting tool? 05
- Q.4 a) What is significance of tool condition monitoring? Explain the techniques used for tool condition monitoring 06  
                  b) What are the important parameters that affect MRR and surface Roughness in honing process 05

Section-B

- Q.5            Solve any three questions from the following 18  
                  a. What is the necessity of non-conventional machining process? Explain giving examples  
                  b. Explain WEDM process and its applications  
                  c. With neat sketch explain blow molding. Give its applications. Give details of process parameters  
                  d. Why electroplating is done? Give its applications
- Q.6 a) Explain the principle of water jet machining. What are the effects of process parameters on the process 06  
                  b) How micro drilling by electro jet process is done. 05
- Q.7 a) Explain principle and working of Roto molding .Give its applications 06  
                  b) Give the application of PVD and CVD coatings in Machining field 05

- Q.8 a) With neat sketch explain injection moulding process. State the effect of different process parameters affecting process. Also list product produced from this process 06
- b) What critical parameters are to be considered for micro drilling by laser beam machining 05