



Reg. No. :

Name :

Fourth Semester B.Tech. Degree Examination, May 2013
(2008 Scheme)
Branch : Mechanical Engineering
08.404 : MANUFACTURING PROCESS (MN)

Time: 3 Hours

Max. Marks : 100

Instructions : 1) Answer **all** questions in Part – A, **each** carries 4 marks.
2) Answer **one** full question in **each** Module in Part – B, **each** carries 20 marks.

PART – A

1. Describe, briefly the tests done on moulding sands.
2. Give an account of different types of moulds.
3. With illustrative examples, explain the use of cores.
4. Explain how directional solidification is ensured in casting.
5. With the help of neat sketch, explain a gating system.
6. Describe friction welding. What is its field of applications ?
7. Explain the principles of submerged arc welding.
8. What are the common weld defects ?
9. Explain what is a flow curve, with respect to metal forming process.
10. Describe the rolling of wheels.



**PART – B****Module – I**

11. a) Describe, in detail, the procedure for making a green sand mould.
b) What are the common defects in castings ? How it can be prevented ?

OR

12. a) Explain the various ingredients of moulding sand and describe the effects of each ingredients on the properties of moulding sand.
b) With the help of a line diagram, explain a jolt squeezing machine.

Module – II

13. a) What is meant by weldability of metals ? How is it assessed ?
b) Describe thermit welding.

OR

14. a) Describe in detail, TIG welding.
b) With the help of a sketch, explain the structural changes that take place at the welded joint.

Module – III

15. a) Describe, with the help of neat sketches, rolling of tubes.
b) With the help of a neat sketch, explain a forging press.

OR-

16. a) Describe, in detail, the wire drawing process.
b) What do you understand by rotary swaging ? Explain the process.