



Reg. No. :

Name :

Fourth Semester B.Tech. Degree Examination, May 2014

(2008 Scheme)

Branch : Mechanical Engineering

08.404 : MANUFACTURING PROCESS (MN)

Time: 3 Hours

Max. Marks: 100

Instruction : Answer *all* questions.

PART – A

1. What are the advantages and disadvantages of green sand molds ?
2. What should be the shape and size of a riser for obtaining a sound casting ?
3. What is dross or slag ? How can it be prevented from becoming a part of the finished casting ?
4. What are the limitations of gas welding ?
5. What is the main difference between upset butt welding and flash butt welding ?
6. Define plasma arc welding. What are its applications ?
7. Explain the functioning of three-high rolling mill.
8. Define tube drawing.
9. What is upset forging ? What are some of the typical products produced by this method ?
10. What are the basic steps involved in making products by powder metallurgy ?
(10×4=40 Marks)

P.T.O.



PART – B

Module – I

11. a) Explain the different pattern allowances and give their significance.
b) Explain the various non-destructive inspection methods of cast products.

OR

12. a) Describe the procedure of making castings by the investment casting process.
b) Explain the solidification process in casting. How does solidification of alloys differ from solidification of pure metals ?

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Module – II

13. a) Explain the shielded metal arc welding process and give its applications.
b) What is friction welding ? Give its advantages and disadvantages.

OR

14. a) Explain the method of electron beam welding and give its applications.
b) With the help of a sketch, explain the significance of different zones in a fusion-weld joint.

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Module – III

15. a) Analyze the wire drawing process and explain the functions of die-angle in wire drawing.
b) Sketch and discuss the process of rolling of channels.

OR

16. a) Illustrate and describe hydrostatic extrusion.
b) What are the common defects in forged parts ?

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