

Model Question

**Fourth Semester B.Tech. Degree Examination
(2013 Scheme)**

13-402: MANUFACTURING PROCESS (MN)

Time: 3hrs

Max. Marks: 100

Answer all questions in part A and any one full question from each module in part B

PART –A

(Each question carries 2 marks)

1. Why draft allowance is given on a pattern?
2. What is the main function of a core? What are core prints?
3. What are chills and chaplets?
4. Give 2 advantages of permanent mould casting
5. Name a suitable method for manufacture of metallic filter elements.
6. Give names of any 5 forging defects
7. What is the purpose of using lubricant in extrusion? Name some lubricants used
8. What is flash in impression die forging?
9. What are the functions of flux in gas welding?
10. Name the materials for spot welding electrodes? How and why is spot welding electrodes cooled when in use?

(2 x 10 =20Marks)

PART B

(Each question carries 20 marks)

MODULE 1

11. (a) Give an account of different types of hand tools used in green sand moulding
(b) Describe in detail plaster moulding process

OR

12. (a) What is directional solidification? Explain how riser helps directional solidification
(b) Explain the design principles of gating system

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MODULE 2

13. (a) Explain with suitable sketch the gravity die casting process.
Compare the process with pressure die casting
(b) Distinguish between semi centrifugal casting and centrifuging as regards their areas of application
- OR**
14. (a) What is pressure less compacting? Discuss its applications in PM
(b) Explain the process plastic blow moulding

MODULE 3

15. (a) Explain the process thread rolling. What are the advantages and limitations?
(b) Explain rolling of channels and rail sections
- OR**
16. (a) Explain different extrusion processes with neat sketches
(b) What is metal spinning? Explain the process with sketches

MODULE 4

17. (a) Describe the HAZ of welded joint and microstructure of the welded region.
(b) Explain with neat sketches the working principle of atomic hydrogen welding
- OR**
- 18 (a) Explain shielded metal arc welding in detail. Sketch an arc welding circuit. Mention the advantages and applications of the process
(b) What are the common welding defects? Explain their causes and remedial measures

(4 x 20 =80Marks)

