

Roll No _____

Total No of pg: 2

Examination May-2014
B. TECH (INDUSTRIAL ENGG.)
MANUFACTURING PROCESSES - II
Paper Code (ME - 210)
Paper ID:A0812

Time : 03 Hrs.

Max. Marks:60

Instructions : 1. Question No. 1 in Section -A is compulsory. Attempt four questions from Section - B and Two from Section-C.
2. Distribution of marks is shown in RH Margin.
3. Support your answer by suitable diagrams, data and examples.

SECTION - A

1.
 - i) Distinguish between cold forming and Hot forming of metal products on the basis of power requirement, characteristic features of products and economics of process.
 - ii) Name any Two forging defects. How will you prevent these defects from occurring?
 - iii) State the main variables in Wire Drawing process, giving the importance of each.
 - iv) Explain the terms Briquetting and Sintering as used in Powder Metallurgy.
 - v) What are various applications of High Velocity Forming Methods?
 - vi) State various requirements of a good cutting tool material. Name any two cutting tool materials used for machining of carbon steels.
 - vii) Distinguish between up cut milling and Downcut Milling clearly.
 - viii) State four functions of a cutting fluid used in machining of metals.
 - ix) What is centreless Grinding? Where is it used.?
 - x) How is a Grinding Wheel designated? Give significance of each feature.

10x2=20

SECTION - B

2.
 - a) Briefly discuss the features of open and closed Die Forging giving their applications.
 - b) Make a sketch showing the Spinning process. Mark the Process elements on it. Name any two products manufactured by this process.
3.
 - a) Distinguish between punching and Blanking Operations in press tool work.
 - b) What are Compound Dies, Combination Dies and Progressive Dies? How do these perform their function?
4. State and briefly describe various methods of producing Metal Powders.
5. Discuss the Geometry of a Single point cutting tool. Give the names of angles and other cutting features ground on such a tool.
6. Explain the working and technical features of a pull type Broaching Machine by means of a neat sketch.

4x5=20

SECTION - C

7. Discuss the following, using suitable neat and labelled sketches.
- a) Products of Rolling
 - b) Multipoint Cutting Tools
 - c) Drive Mechanism of a Centre Lathe.
8. Explain the following manufacturing processes / Operations with diagrams.
- i) Taper Turning Methods on a Lathe.
 - ii) Differential Indexing in Milling.
 - iii) Mechanism of a Shaper Machine.
9. Write short notes on any three of the following
- i) Draw Benches
 - ii) Characteristics of a good Cutting Fluid
 - iii) Power and Force requirement in Drilling operation.
 - iv) Variables in Extrusion Process.

2x10=20

.....**End**.....