

24169

B. Tech. 4th Semester (Mechanical Engg.) Examination,  
May-2013

MANUFACTURING TECHNOLOGY-I

Paper-ME-202-F

Time allowed : 3 hours] [Maximum marks : 100

**Note :** *Question 1 is compulsory. Attempt five questions in total by selecting at least one question from each section.*

1.
  - (i) Significance of Rake and clearance angle.
  - (ii) Electrode and its ingredients.
  - (iii) Difference between Brazing and Soldering
  - (iv) Go and NOT Go gages.
  - (v) Rolling defects
  - (vi) Specification of lathe
  - (vii) Taylor Equation of tool life
  - (viii) Risers
  - (ix) Fettling of Casting
  - (x) Tool signature.

10×2=20

**Section-A**

2.
  - (a) Make a brief summary of relationship between various angles and forces as per Merchant's analysis of Metal cutting. 10
  - (b) Explain different types of chips with neat sketches. 10

3. Define parts of twist drill with neat sketch and also define their functions. 20

**Section-B**

4. (a) With the help of neat diagram explain types of milling fixtures. 10  
(b) Explain Principle of location of jigs and fixtures. 10
5. (a) What is a Gauge ? Classify them with neat sketches. 10  
(b) Explain linear measuring instruments with sketches. 10

**Section-C**

6. (a) Explain taper turning methods on lathe with suitable diagrams. 10  
(b) Differentiate between up milling and down milling with sketches. 10
7. (a) What is casting Process ? Explain the steps in casting process with suitable diagrams. 10  
(b) Enumerate the properties of moulding sand. 10

**Section-D**

8. (a) Explain thermal welding with sketch. 10  
(b) What is oxyacetylene welding ? Explain types of flames with neat sketches. 10
9. Differentiate between : 20  
(a) Blanking and punching.  
(b) Hot and Cold extrusion with neat sketches.

