

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

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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.