

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.