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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

(2)

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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.

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