

MODEL QUESTION PAPER

BF6

I Semester B.TECH Examination, August 2011 INTRODUCTION TO MANUFACTURING

Time: 3 Hours

Max. Marks: 75

GROUP A : Answer any three questions.

- Q.1 Describe with neat sketches any five operations performed on Lathe by holding the work piece between the centers.
- Q.2 Explain various properties of moulding sand.
- Q.3 Write short notes as following:
- | | |
|-----------------------|------------------------|
| (a) Plasma re welding | (b) Friction welding |
| (c) CAD | (d) External broaching |
- Q.4 Compare between Centrifugal Investment & Continuous Casting.
- Q.5 What are the advantages and disadvantages of die casting?

GROUP B : Answer any three questions.

- Q.6 Explain the working principle employed in milling operation.
- Q.7 Describe (i) External broaching (ii) Internal broaching with neat sketches
- Q.8 Explain working principles & user of different moulding machines.
- Q.9 Explain with a neat sketch the gear planning process.
- Q.10 Sketch an involute gear tooth and define the elements on it.

GROUP C : All Questions are Compulsory.

Q.11 Fill in the blanks

- (i) Wheel structures are commonly indicated by _____.
- (ii) Buffing is finishing operation which is usually performed after _____ to provide lustrous, reflective finish.
- (iii) Commonly used artificial abrasives are _____, _____, _____.
- (iv) In Moulding Box Lower half is called as _____.
- (v) The horizontal boring machine is mainly specified by _____ and _____.

Q.12 Multiple choice question.

- (i) Out of following which welding require separate Filler Rod _____.
- | | |
|-----------------|------------------------|
| (a) TIG | (b) MIG |
| (c) Arc Welding | (d) Resistance Welding |
- (ii) Arbour of milling machine is designed to hold _____.
- | | |
|-------------|-------------|
| (a) Spindle | (b) Work |
| (c) Cutter | (d) Overarm |
- (iii) _____ abrasive is used for grinding materials of high tensile strength.
- | | |
|---------------------------|----------------------------------|
| (a) Silicon carbide (Sic) | (b) Aluminum Oxide (Al_2O_3) |
|---------------------------|----------------------------------|

- (c) Boron Carbide (B_4C) (d) None of these.
- (iv) Re-crystalline temperature for steel is increased in_____.
(a)Hammering (b)Hot working
(c)Cold working (d)Extrusion
- (v) The location of cutter as plain milling machine arbour is controlled by_____.
(a) Operator (b) Thickness of cutter
(c) Spacing collars (d) Hole in cutter.

Q.13 True or false

- (i) Very good surface finish can be obtained in up milling process.
- (ii) Jig boring machine is used for boring holes in fixtures dies & gauges.
- (iii) Lapping is an abrading process in which thick layer of metal is removed from the surface.
- (iv) Hot rolling is economically viable process.
- (v) Broaching has comparatively longer life.
