

# **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 arc 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 & use 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) Arbor 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.

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