B. Tech.
(SEM. II ) THEORY EXAMINATION 2010-11
MANUFACTURING PROCESSES

Time : 2 Hours
Total Marks : 50

Note : (i) Attempt all questions.
(ii) Marks allotted to each question are indicated on right hand side.

SECTION—A

1. This section contains 10 questions. All questions are compulsory.

   (10×1=10)

   (a) Working mechanism of shaper is known as ..................

   (b) One of the specifications to define the size of lathe is ............

   (c) Cylinder used for storing Acetylene gas is first filled with ............

   (d) Cast iron fails showing ................. facture.

   (e) Metals having ................. property can be easily drawn into wires.

   (f) Solder is an alloy of Tin and .................

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(g) Shrinkage allowance on master pattern is ....................

(h) Tungsten filament on electric bulbs are made by ..............

(i) Property of ................. helps the casting to be easily taken out from the moulding sand.

(j) In galvanizing process the surface is coated with ..............

SECTION—B

2. Attempt any three questions : 

(a) Explain the following :

(i) Toughness  (ii) Hardness  

(iii) Malleability  (iv) Fatigue  

(v) Plasticity

(b) What are brasses ? List various types of brasses giving their uses.


(d) Draw a labeled diagram of universal milling machine. Also list various operations performed on it.

(e) Write a note on the following :

(i) Types of Plant layout  

(ii) Cement Concrete
SECTION—C

3. Question (a) is compulsory and carries Seven marks. (25)

Attempt any three more questions from the remaining (all carry six marks):

(a) Draw labeled diagram of three types of flames used in Oxyacetylene gas welding. Also give their uses.

(b) Explain Powder metallurgy process. Also give its advantages and applications.

(c) What are the important properties which are essential in a good moulding sand? Explain in detail.

(d) What do you understand by Extrusion process? What are the items made by this process? Explain in detail giving suitable examples.

(e) What are the ingredients of moulding sand? What is the effect of particle size on surface quality of casting?

(f) Write notes on:

(i) Composite materials

(ii) Plastics.