Diploma / Integrated B.Tech 3rd Semester (ME) Examination
June, 2014
MANUFACTURING TECHNOLOGY-I

Subject Code: MEL-037

Time Allowed: 03 hours. Maximum Marks: 100

Before answering the question paper the candidate should ensure that they have been supplied the correct question paper. Complaints in this regard, if any, shall not be entertained after the examination.

Note: Question No. 1 is Compulsory and attempt two questions from each section. All questions carry equal marks.

1. Define the following
   a. Centrifugal Casting
   b. Welding Distortion
   c. Core Prints
   d. Applications of welding
   e. Punching

   SECTION-A

2 (a) What are the different hand tools used for mould making? (5)

(b) What are the different properties of molding sand? (8)

(c) What are the elements of a gating system? (7)

3 (a) Distinguish between open and closed die forging processes. (10)

(b) What are the different types of casting defects? Explain in detail. (10)

4(a) Explain the construction and working of cupola furnace with diagram. (10)

   (b) What do you mean by extrusion? Explain direct extrusion in brief. (10)

   SECTION-B

5(a) Define welding? Classify various welding processes. (10)

   (b) What is the principle of resistance welding? Explain in brief about spot welding? (10)

6(a) What are the different modern welding methods? Explain in detail about any one of them. (10)

   (b) What is the effect of polarity on heat generated in welding? (5)

   (c) Name the flames involved in gas welding. (5)

7(a) What are the different equipments used in gas welding? Explain about each in brief. (10)

   (b) What is the difference between Tungsten inert gas welding and Metal inert gas welding? (10)