

S.E. (Mechanical) (Sem-III) CBCSGS) CR-2012

Time : 3 Hrs

[Total Marks: 80]

- N.B.** i) Question no.1 is **compulsory**.
 ii) Attempt any three questions out of remaining five questions
 iii) Figures to right indicates full marks

- Answer any Four of the following 20
1.
 - a) Explain the various casting defects
 - b) Explain the important properties of moulding sand
 - c) Explain vacuum forming process of polymers
 - d) Differentiate between soldering & brazing
 - e) What is NDT List various methods of NDT
 - f) Give the Classification of manufacturing Process
 2.
 - a) Write short notes on i)) Pattern Allowances ii)Gating system 10
 - b) Discuss the various defects in rolled parts with neat sketches 10
 3.
 - a) What is meant by Forging? Differentiate between closed die forging and open die forging 10
 - b) Differentiate between Thermosetting plastics and Thermoplastic plastics 10
 4.
 - a) What is Powder Metallurgy? Why Gears are manufactured by Powder metallurgy? List some advantages, disadvantages and applications 10
 - b) Differentiate between the following : 10
 - i) Patterns and Core Boxes ii) Wing Core & Hanging type of Core
 5.
 - a) What is Electron Beam Welding process? Explain the process with a neat sketch stating its merits demerits and applications 10
 - b) Explain the various types of Rolling mills and also Explain Thread Rolling process 10
 6.
 - a) Compare TIG and MIG welding processes 10
 - b) Write Short notes on: i)Gear milling ii) Extrusion Process 10
