GUJARAT TECHNOLOGICAL UNIVERSITY BE - SEMESTER-VII(NEW) • EXAMINATION – WINTER 2016

Date:23/11/2016

Subject Code:2172003

Subject Name: Manufacturing Technology - II

Time: 10.30 AM to 1.00 PM **Total Marks: 70 Instructions:** 1. Attempt all questions. 2. Make suitable assumptions wherever necessary. 3. Figures to the right indicate full marks. 0.1 (a) How are patterns classified? Describe any two patterns with neat sketches. 07 What are the common defects of casting? State their causes and remedies. **07 Q.2** Explain working principle, process and application of TIG welding. 07 (a) What are principles of operation of resistance welding? Explain any one 07 resistance welding with their relative merits and limitations. **(b)** Write a short note on Gas Welding with necessary sketches **07** Explain electric discharge machining with principle of operations, give its **Q.3** 07 applications advantages and disadvantages. State different principles of jigs and fixture design. Explain any one of them 07 with neat sketches. OR Explain Laser Beam Machining (LBM) with principle of operations, give its 0.3 07 applications, advantages and disadvantages. (b) List various clamping devices used in Fixtures. Sketch any two clamping 07 devices with its working. 07 0.4 What are the different forging operations? Explain any two with neat sketch. Explain the working principle of sine bar for angle measurement; briefly 07 describe the other measuring devices available for angular measurement. (a) What is extrusion? explain briefly with neat sketches different processes of 07 0.4 extrusion. (b) Diffentiate between measuring and gauging. Explain both with an example. **07** Q.5 Write a short note on Die Casting with neat sketch. 07 **(b)** Define the following terms in cold working. 07 (1) Shearing (2)piercing (3)perforating (4)Notching (5)Lancing (6)Trimming (7) Beading OR Write a short note on Investment Casting with neat sketches. 07 Q.5 (a) (b) Diffentiate between cold working and hot working processes for metal forming 07 and write their relative merits and demerits. *****

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