Subject Name: Injection moulding Technologies

Subject Code: 152301

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-V • EXAMINATION – WINTER • 2014

Date: 26-11-2014

Time: 10.30 am - 01.00 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) What is two stage plunger machine? Explain it in detail. 07 (b) How you dry your plastic material before processing it in injection machine? 07 **Q.2** (a) What is nozzle? Explain Needle type shut off nozzle & Nylon nozzle. 07 Explain basic principle of screw conveying. **07 (b)** OR **(b)** Explain screw output in detail. 07 0.3 Explain following (A) Tip used for heat sensitive material, (B) Ring type non-(a) 07 return tip. **(b)** Provide types of clamping system. Explain Mono-toggle clamping system. 07 What safety consideration must be follow in injection molding process? **Q.3** (a) 07 Provide types of clamping system. Explain Lock & Block clamping system. 07 0.4 What is cavity pressure profile? Explain it in detail. 07 Explain close loop & open loop system. 07 OR How you start up and close injection molding process explain it in detail. 07 0.4 (a) (b) Explain nitriding process done on different injection molding machine part. 07 0.5 Explain Tie-bar Less injection molding machine in detail. 07 (a) Explain trouble shooting for following problem (1) Warpage and (2) Flash **07** OR Explain melting of plastic material occurs in injection molding screw. **07** 0.5 (a) **(b)** Define Following 07 3. Suck-back 1. Balanced Runner 2. Co-Injection 4. Cavity 5. Drooling 6. Clamping Area 7. Masterbatch
