

GUJARAT TECHNOLOGICAL UNIVERSITY**Diploma Engineering - SEMESTER-IV • EXAMINATION – SUMMER • 2015****Subject Code: 3342302****Date: 07-05-2015****Subject Name: Design of Injection Mould****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.
4. English version is considered to be Authentic.

- Q.1** Answer any seven out of ten. **14**
1. Suggest any two materials for making of core insert and guide pin.
 2. Define limits and fits.
 3. How will you clean mold cooling channels?
 4. Define two plate and three plate mold.
 5. Sketch any two products which require use of split mold.
 6. What is stack mold? State its application.
 7. Define split mold and hot runner mold.
 8. State the use of stop bolt as opening control device.
 9. State the procedure for preventing mold from corrosion.
 10. State disadvantages of hot runner mold.
- Q.2** (a) State and explain various types of mold materials. **06**
- OR
- (a) State and explain various mold material requirements with respect to mold design and mold making. **06**
- (b) State any four injection machine specification for fitment of mold with its units. **04**
- OR
- (b) Define shrinkage. With suitable example explain shrinkage calculation method. **04**
- (c) Write mold designer's checklist points with respect to product. **04**
- OR
- (c) Sketch any one type of taper location recess method. **04**
- Q.3** (a) What is underfeed mold? state its advantages. **03**
- OR
- (a) Sketch any one runner ejection technique. **03**
- (b) Draw sectional elevation of two plate mold for any product and label different parts. **07**
- OR
- (b) Draw sectional elevation of stripper plate mold for any product and label different parts. **07**
- (c) Compare two plate and three plate molds. **04**
- OR
- (c) State opening control devices and explain any one. **04**
- Q.4** (a) Sketch and explain various split guiding designs. **07**
- OR
- (a) List split safety methods and explain any one. **07**
- (b) Sketch and explain finger cam actuation method. **07**
- Q.5** (a) Explain stripping method for external threads. **04**

- (b) Explain significance of insulated hot runner system. **04**
- (c) State advantages of hot runner system. **03**
- (d) Explain importance of venting in mold design. **03**
