

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

M.E Sem-I Regular Examination January / February 2011

Subject code: 712506N

Subject Name: Advance Spinning Technology

Date: 03 /02 /2011

Time: 02.30 pm – 05.00 pm

Total Marks: 70

Instructions:

- 1. Attempt all questions.**
- 2. Make suitable assumptions wherever necessary.**
- 3. Figures to the right indicate full marks.**

- Q.1** (a) Derive formula to calculate transfer ratio on card. **07**
(b) Explain any one chute feed system in carding with neat sketch. **07**
- Q.2** (a) Explain different condensed yarn spinning process. **07**
(b) Briefly explain air jet yarn structure. **07**
- OR**
- (b) Discuss influence of different process parameters on air jet yarn properties. **07**
- Q.3** (a) Compare Murata vortex system with Murata air jet system. **07**
(b) Describe solo spinning process with economic and product benefits. **07**
- OR**
- Q.3** (a) Explain different twistless spinning process **07**
(b) Give importance of autoleveller and types of autolevellers on card with their significance on yarn quality. **07**
- Q.4** (a) Discuss rotor yarn formation mechanism. **07**
(b) Explain process parameters influencing rotor yarn quality. **07**
- OR**
- Q.4** (a) Explain fibre migration in rotor yarn spinning. **07**
(b) Briefly explain any four latest developments in rotor spinning. **07**
- Q.5** (a) Explain in brief DREF 5 and DREF 2000 friction spinner. **07**
(b) Define theoretical twist determination in friction spinning. **07**
- OR**
- Q.5** (a) Explain in brief DREF 2 and DREF 3 friction spinner. **07**
(b) Give application fields of friction spinning yarn. **07**
