

**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**BE - SEMESTER-VII • EXAMINATION – SUMMER • 2014**

**Subject Code: 172904****Date: 05-06-2014****Subject Name: Process and Quality Control in Spinning****Time: 02.30 am - 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) Discuss in detail role and scope of process control in spinning. **07**  
 (b) Explain in detail how control of mixing quality is carried out through fibre characteristics. **07**
- Q.2** (a) Describe all the records required for estimating yarn realization. **07**  
 (b) Discuss in brief how, performance assessment of blow-room is done. **07**
- OR**
- (b) Why and how control of waste and cleaning is carried out in carding. **07**
- Q.3** (a) Discuss importance of pre-comber draft and method of lap preparation in control of comber waste. **07**  
 (b) Explain object and procedure of Bale management in spinning. **07**
- OR**
- Q.3** (a) Briefly explain all the changes carried out in modern process control activity in spinning. **07**  
 (b) What is machinery audit? With neat sketch explain construction and working of peri-microscope. **07**
- Q.4** (a) Explain the terms MPI & LER with respect to productivity of mill. Also discuss how they are measured. **07**  
 (b) 'Mills having same PI value need not be having same profitability'. Explain the statement in detail **07**
- OR**
- Q.4** (a) Classify the end breaks taking place at ring frame and discuss each of them with examples. **07**  
 (b) Discuss the factors affecting within bobbin count variation. **07**
- Q.5** (a) Discuss various types of yarn faults briefly. **07**  
 (b) Explain the quasi periodic component of yarn irregularity. **07**
- OR**
- Q.5** (a) Discuss in detail various factors affecting yarn strength. **07**  
 (b) Discuss various factors to be considered for implementation of process control in spinning mill. **07**

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