

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-VIII (NEW) - EXAMINATION – SUMMER 2017

Subject Code: 2182907

Date: 06/05/2017

Subject Name: Process & Quality Control in Spinning

Time: 10:30 AM to 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.

- Q.1** (a) Discuss various factors affecting between bobbin count variation. **07**
(b) Classify end breaks taking place at ring frame into different categories with suitable example for each. **07**
- Q.2** (a) Discuss various factors affecting yarn strength. **07**
(b) Describe briefly how yarn appearance is judged along with grades. **07**
- OR**
- (b) Describe briefly causes and remedies for : **07**
(i) Slough off (ii) Yarn hairiness
- Q.3** (a) Describe corrective actions that can be taken in a mill for following causes of loss in efficiency at ring frame : **09**
(i) Waiting for doffing
(ii) Waiting for empty bobbins
(iii) Idle spindles
(b) Describe briefly random component of yarn irregularity. **05**
- OR**
- Q.3** (a) State various indices of productivity along with the expression to calculate it. Hence briefly describe how PI of mill can be calculated. **09**
(b) Discuss effect of various spinning machines on nep generation. **05**
- Q.4** (a) What is yarn realization? Discuss methods of assessing and controlling it. **07**
(b) Explain simultaneous control of mixing cost & quality by graphical method. **07**
- OR**
- Q.4** (a) Explain the role and scope of process control in spinning with the help of chart. **07**
(b) Explain control of mixing quality through individual fiber characteristics. **07**
- Q.5** (a) Explain machinery audit done by the spinner giving check list of spinning machines. **07**
(b) Describe performance assessment of comber. **07**
- OR**
- Q.5** (a) Explain how to determine trash content and cleaning efficiency of blow room. **07**
(b) Explain in detail modern process control in spinning on ring frame. **07**
