

**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**ME – SEMESTER II (NEW) – • EXAMINATION – SUMMER 2016**

**Subject Code: 2722513****Date: 31/05/2016****Subject Name: Process & Quality Control In Textile****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.

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|------------|--|-----------------------------------|
| <b>Q.1</b> | Define and explain the effect loom productivity and efficiency play an important role to enhance fabric quality.   | <b>14</b>                         |
| <b>Q.2</b> | <p>(a) Discuss the factors affecting on yarn tension in rotor.</p> <p>(b) What are the impacts of drawing in yarn quality?</p>   | <p><b>07</b></p> <p><b>07</b></p> |
| <b>OR</b>  |  |                                   |
|            | (b) Discuss the common problems of drawing during process control.   | <b>07</b>                         |
| <b>Q.3</b> | <p>(a) List out the common faults and their causes in knitting.</p> <p>(b) What is the importance of automatic fabric inspection system.</p>   | <p><b>09</b></p> <p><b>05</b></p> |
| <b>OR</b>  |  |                                   |
| <b>Q.3</b> | <p>(a) Discuss the common defects and their causes during the combing process.</p> <p>(b) Which would be the correct strategy to enhance quality of blowroom process (opening, cleaning and mixing)?</p> | <p><b>07</b></p> <p><b>07</b></p> |
| <b>Q.4</b> | <p>(a) In ring spinning which factors are responsible for more number of end breakage.</p> <p>(b) Discuss the key elements of process control in comber.</p>   | <p><b>07</b></p> <p><b>07</b></p> |
| <b>OR</b>  |  |                                   |
| <b>Q.4</b> | <p>(a) Which factors are responsible for the twist variation in ring spinning?</p> <p>(b) Write a note on process control in sewing.</p>   | <p><b>07</b></p> <p><b>07</b></p> |
| <b>Q.5</b> | <p>(a) What is the role of statistical process control (SPC) in quality improving of textile manufacturing process.</p> <p>(b) Define <math>\bar{x}</math>-test and <math>\bar{F}</math>-test.</p>       | <p><b>10</b></p> <p><b>04</b></p> |
| <b>OR</b>  |  |                                   |
| <b>Q.5</b> | <p>(a) What is the effect of card cylinder region and licker in region parameters on card sliver quality?</p> <p>(b) Explain quick style change (QSC).</p>   | <p><b>10</b></p> <p><b>04</b></p> |

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