

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-VIII (NEW) - EXAMINATION – SUMMER 2018

Subject Code: 2182902

Date: 07/05/2018

Subject Name: Process & Quality Control in Weaving

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) What are the causes of tightness/slackness in shed connections? How ratio of front and back heald shaft lift is calculated? **03**
- (b) How yarn content on pirn is calculated for direct and rewound weft? What are the causes of low yarn content? **04**
- (c) “It is not possible to maintain desired loom speeds if the mechanical condition of the loom is not satisfactory” Justify the statement **07**
- Q.2** (a) What is the importance of control of tension level in minimising end breaks at warping? **03**
- (b) Discuss in short what special care is required during weaving of Polyester Filament yarn as weft in shuttle looms? **04**
- (c) Explain in detail various quality point about sizing beams. **07**
- OR**
- (c) Explain effect of immersion roller, squeezing roller & level of size paste on average size pick up. **07**
- Q.3** (a) Write in short on any two parameters to improve the build of the pirn. **03**
- (b) Write in short on Factors affecting calculation of loom efficiency. **04**
- (c) Write on method of controlling stops due to shuttle change. **07**
- OR**
- Q.3** (a) Explain terms like clearing efficiency, knot factor, relative strength of splice and clearing curve. What is the importance of these terms? **03**
- (b) Write in short on causes & remedies for weft bar damage. **04**
- (c) Explain in detail diagnostic chart for loom shed efficiency. **07**
- Q.4** (a) How size take up can be increased? Explain role of machine speed & size viscosity for this in short. **03**
- (b) Causes & remedies for small weft loop damage. **04**
- (c) Discuss on control of warp breaks with respect to warp stop motion, staggering of healds and shed timing. **07**
- OR**
- Q.4** (a) What is meant by methodology of direct control? **03**
- (b) List causes & remedies for patterning damage occurring on wound bobbins. **04**
- (c) Write a short note on quality of warping beam. **07**
- Q.5** (a) What are the effects of reed parameters on weaving performance? What is air space? **03**
- (b) Give sizing-weaving curve and hence discuss how optimum size pick up level is decided? **04**
- (c) Explain various aspects of controlling unwinding tension at winding process. **07**

OR

- Q.5** (a) What is meant by yarn slough off damage of wound bobbin? Give causes and remedies. **03**
- (b) What are the types of knots and control measures of quality of knot? **04**
- (c) Write in detail on control of hard waste at shuttle loom shed. **07**
