THE TEXTILE ASSOCIATION (INDIA)
A.T.A. PART III – EXAMINATION - 2017
PROCESS CONTROL IN FABRIC MANUFACTURE A3.3 (OPTIONAL)

Date: 25-12-2017  Marks: 100  Time: 10.00 A.M. to 01.00 P.M.

Instructions:
1. Attempt any SIX Questions out of which Q.1 is compulsory
2. Answer each next main question on a new page
3. Figures to the right hand side indicates full marks
4. Illustrate your answers with sketches and flow charts wherever necessary
5. Use of non-programmable electronic pocket calculator permissible
6. Mobile and any other communication devices and books etc. are not allowed in exam hall
7. Assume suitable data wherever necessary

Q. 1:  a) Fill in the blanks:
   i) A major cause of defects ............... at sizing is incorrect mending of ends at warping
   ii) A defect .................... is a weft loop protruding from the cloth surface
   iii) A ............... coating on the cylinders in a sizing machine will reduce stickiness
   iv) A defect ............... is formed in fabric when two or more ends unintentionally get woven as one, characterized by a thick bar running parallel to the warp

   b) State True or False:
   i) Cylinder in the sizing machine is made of Stainless Steel Sheet
   ii) A float is the fabric defect in which improper interlacement of warp and weft threads in the fabric over a certain area
   iii) The picking bands should be kept inside polyester bags and stored in a dry place
   iv) The positive-let-off motion has a device to drive the beam and it is used for very light fabric quality

   c) Match the following:
   i) Let-off motion
   ii) PVA
   iii) Splicing Unit
   iv) Slub Catcher
   a) Winding
   b) Autoconer
   c) Weaving
   d) Sizing Chemical

Q. 2: a) Explain snap study technique and its application in loom shed
   b) Explain the scope of process control in Sizing

Q. 3: a) Explain the fabric defects with causes and remedies for Missing ends and lashing-in
   b) What is the scope of process in Autoconer winding machine?

Q. 4: a) State types of winding faults with causes and remedies
   b) What are the major factors for quality package preparation in warp winding?
Q. 5:  a) What parameters of Reed and Heald should be considered for process control on loom?
b) State the factors affecting size pick-up and how control it

Q. 6:  a) Which factors decide the Automatic Power Loom performance?
b) What is the process control in Warping machine?

Q. 7:  a) Compare Wet and Dry splitting
b) What is After-waxing? How it helps in improving sized yarn quality?

Q. 8:  a) What steps will be taken to work Soft Beams (low size %) on looms
b) how to inspect grey fabric? What are the important elements of inspection?