THE TEXTILE ASSOCIATION (INDIA)
A.T.A. PART – I EXAMINATION -2018
PAPER-A1.4
ELEMENTS OF TEXTILE TECHNOLOGY
MARKS – 100

Date :- 25/12/2018

Instructions:
1. Attempt any six questions out of which Q.1 is compulsory
2. Answer each next main question on new page.
3. Figure to the right indicates full marks.
4. Illustrate your answer with sketches and flow chart wherever necessary.
5. Use of non programmable electronics pocket calculator permissible.
6. Mobile and other communication devices are not allowed in exam hall.
7. Assume suitable data wherever necessary.

Q 1. a) Fill in the blanks. (6)
   i) Viscose fibre is __________ fibre.
   ii) Fibre strength is measured in __________ unit.
   iii) Knitted fabrics have ________ stretch ability than woven fabrics.
   iv) ________ dye is mostly used for polyester dyeing.
   v) Fibre parallelization is done by ________ machine.
   vi) Wet strength of cotton fibre is ________ than dry strength.

b) Say True or False (5)
   i) Carded yarn is more uniform than combed yarn
   ii) Tex is direct yarn numbering system.
   iii) Beat-up is a secondary motion of loom.
   iv) Wool fibre is regenerated type of fibre.
   v) Nylon is the synthetic fibre.

c) Write short notes on following (any three) (9)
   i) Sizing
   ii) Melt spinning
   iii) Bleaching
   iv) Texturising

Q 2. Explain objects of following in brief (Any four) (16)
   i) Speed frame
   ii) Ginning
   iii) Doubling
   iv) Comber
   V) Ring frame
Q.3. a) Explain fibre classification by neat chart  
   b) Explain following with examples  
      i) Warping  
      ii) Combing preparatory

Q.4. a) Explain primary and secondary motions of loom in details  
   b) What are the objects of sizing?  
   c) Give the list of synthetics fibres?

Q.5. a) Explain the process flow chart of wet processing for polyester fabric.  
   b) Explain yarn numbering system with examples.

Q.6. a) Explain objectives of following processes (Any two)  
      i) Desizing  
      ii) Mercerizing  
      iii) Scouring  
   b) Draw Design, Draft & Peg Plan of Twill weave  
   c) Convert the following (Any two)  
      i) 60 Ne to Tex  
      ii) 40 Metric (Ne) to English count  
      iii) 80 denier to Tex

Q.7. a) Explain in detail the following dyes.  
      i) Direct dye  
      ii) Vat dye  
      iii) Basic dye  
      iv) Reactive dye  
   b) Explain the process flow chart of carded and combed yarn.

Q.8. a) What are the objects of winding and warping?  
   b) Explain the following (Any two)  
      i) Printing  
      iii) Singing  
      ii) Knitting

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