THE TEXTILE ASSOCIATION (INDIA)
A.T.A PART-I NEW 3 YEARS EXAMINATION- 2014
PAPER-A 1.4
ELEMENTS OF TEXTILE TECHNOLOGY

Date: 12.2014                  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. Figure to the right indicate 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 are not allowed in exam hall.
7. Assume suitable data wherever necessary

Q1.

a) Say True or False
   i) Comber is the heart of spinning                        (6)
   ii) Take-up is the secondary motion of weaving
   iii) Metric is the direct yarn numbering system
   iv) Vat dye is mostly used for polyester dyeing
   v) After sizing the strength of yarn is increases.
   vi) Viscose fibre is natural fibre.

b) Fill in the blanks.
   i) Strength of viscose fibre is __________ in wet condition.
   ii) Combed yarn is __________ uniform than carded yarn.
   iii) Yarn faults are removed on ___________ machine.
   iv) Fibre to fibre separation is done by ___________ machine.
   v) Cotton is ___________ Fibre.


c) Explain the following (any three)                  (9)
   i) Dyeing
   ii) Sizing
   iii) Draw-frame
   iv) Texturising

Q2. Explain the objective of following in brief(Any four).                  (16)
   i) Ginning
   ii) Carding
   iii) Warping
   iv) Comber
   v) Beat-up (loom)
Q.3.  
a) Explain fibre classification by neat chart  (9)
b) Explain following process  (9)
   i) Winding
   ii) Doubling

Q.4
a) Give the list of primary and secondary motions of loom  (8)
b) Explain shedding & Picking motion of loom  (8)

Q.5.
a) Explain yarn numbering system with examples.  (8)
b) Convert the following  (8)
   i) 10 tex to denier
   ii) 14s English to Metric count
   iii) 20s Ne and 24s Ne single yarns doubled, find resultant count
   iv) 30s Ne convert into Denier

Q.6.
a) Explain objectives of following processes  (8)
   i) Bleaching  ii) Singeing  iii) Desizing  iv) Printing

Q.7.
a) Explain cotton spinning flow chart for carded and combed yarn  (8)
b) Write brief notes on following (any two)  (8)
   i) Blow room
   ii) Speed frame
   iii) Ring frame

Q.8.
a) Explain the types of dyeing  (8)
b) Explain the end uses (Any two)  (4)
   i) Double yarn
   ii) Knitted fabric
   iii) Non-woven fabric
c) Draw the process flow chart of weaving.  (4)

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