THE TEXTILE ASSOCIATION (INDIA)
PAPER – A.3 OB

MODERN FABRIC MANUFACTURE

Date: 26.12.2016 Marks: 100 Time: 10 am to 1.00 pm

Instructions:
1. Attempt six questions out of which Q.1 is compulsory
2. Answer each next main question on new page
3. Figure to the right indicate full marks
4. Illustrate your answer with sketches and flow chart whenever 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

Q.1 Write a short note on following: (20)
   i) Weft insertion system of projectile weaving m/c.
   ii) Weft insertion system of air jet weaving m/c.
   iii) Selvedge formation and its identification i.e. tuck-in selvedge and plain selvedge.
   iv) Performance of ring spun yarn and open end yarn in air jet weaving machine.

Q.2 Explain the manufacturing and identification of leno selvedge along with classification and economic use with other selvedges. (16)

Q.3 a. Classify different kind of shuttle less weaving m/c with their end uses and speed. (16)
   b. Explain picking mechanism of rigid rapier system.

Q.4 a. What type of problem generally occurs in weft insertion system and air blowing sequence? How can it be rectify? (16)
   b. How air can be measured and write about air quality?
   c. What type of fabric is woven on air jet weaving m/c. explains blowing sequence of relay nozzles and lining control.

Q.5 Explain picking mechanism of projectile weaving m/c with a neat sketch. (16)
Q.6  a. Write a short note on drying of fabric in water jet weaving m/c, quality of water needed and water jet width.
    
b. Explain the path of yarn of weaving m/c in warp and weft direction (water jet looms).

Q.7  Explain the driving mechanism of flexible rapier machine.

Q.8  a. Describe various types of fabric defects and their remedies in detail.
    
b. What are types of fabric grading? Explain the four point system of fabric grading.