THE TEXTILE ASSOCIATION (INDIA)
A.T.A. (REVISED) EXAMINATION – 2015
PART III - A3.OA

MODERN YARN MANUFACTURE

Date: 27.12.2015
Marks: 100
Time: 10 am to 1 pm

Instructions:
1. Attempt six questions out of which Q1 is compulsory
2. Answer each next question on new page
3. Figure to the right indicate full marks
4. Illustrate your answers with sketches and flow chart 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. Justify the statement giving reasons in 6 to 8 lines minimum:
   i. Yield of Bt cotton is less compared to normal cultivated cotton
   ii. Autoleveller reduce only short term irregularities
   iii. Neps can be eliminated in a process called combing
   iv. Point to point action of card wire is called stripping
   v. Contaminated cotton is suitable for rotor O-E Spinning
b. Compare the following
   i. Blending Vs Mixing
   ii. Major Vs minor cleaning points
   iii. Bi coiling Vs Single coiling
   iv. Cop builds Vs roving build
   v. Chute feed Vs Conventional feed

Q2 Discuss in brief the recent developments in spinning from Blow room to Winding

Q3 a. What are the limitations of cotton spinning?

b. Discuss in detail how these limitations are made to overcome in the modern Ring spinning technologies.

Q4 With suitable illustrations explain the structure and character of the following Yarns
   i. Self twist yarn
   ii. Friction spin yarn
   iii. Air-Jet yarn
   iv. Siro Spun yarn

Q5 With suitable diagram discuss in detail the concepts of various Unconventional spinning Technologies

Q6 Discuss in brief few yarn properties of the following :
   i. Ring Yarn
   ii. O-E yarn
   iii. Cover spun yarn
   iv. Twistless yarn

Q7 What are the advantages and disadvantages of Ring and rotor spinning?

Q8 Write short notes on the following:
   i. Use of IT in spinning
   ii. Fibre recovery plants
   iii. Compact spinning
   iv. Bale management