THE TEXTILE ASSOCIATION (INDIA)
A.T.A. PART-III NEW 3 YEARS EXAMINATION –2014
PAPER – A 3.0A
MODERN YARN MANUFACTURE
Marks:100
Time: 10:00 am to 01:00 pm

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

Q.1 Justify the statement. Give reasons (any five) – minimum 6 to 8 lines.
   a. There is no room called BLOW ROOM in the modern automated spinning mill.
   b. Cotton contamination can be reduced by modern ginning practices.
   c. Exposure to cotton dust causes Byssinosis.
   d. Short staple fibres are best suited to spin rotor yarn.
   e. Murata air-jet (MTS) spun yarn reduces processing stage of doubling.
   f. BT cotton yield is much higher than normal cotton yield.

Q.2 a. What are the advantages and disadvantages of chute feed system?
   b. Write a note on Auto mixer.

Q.3 Discuss in detail the features of any make of most modern cotton card.

Q.4 a. Explain in detail why auto levellers assume greater significance in modern carding and drawing operations?
   b. With a line diagram, explain the basic principles of auto leveller.

Q.5 a. What are the various concepts of drafting principles applied in the roller drafting systems?
   b. With a neat sketch describe any one of the modern roller drafting as applied to cotton drawing machine.

Q.6 a. High speed combing need heavy duty laps. Discuss in brief how the modern combers are designed to achieve this technical aspect?
   b. Discuss the features of any one of the high speed combing machine.

Q.7 “In spite of the development high production non-conventional spinning systems, ring spinning system remain as a challenge.” Discuss this statement critically giving reasons.

Q.8 Write short note on the following:
   a. Features of modern flyers.
   b. Twist less spun yarn.
   c. High speed spinning systems
   d. Threading conditions used in high speed roving machine.