THE TEXTILE ASSOCIATION (INDIA)
G.M.T.A.(REVISED) EXAMINATION –2014
SECTION-B  PAPER-B1
YARN MANUFACTURE

Date: 24.12.2014 Marks: 100 Time: 02:00 to 05:00 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.a. Giving proper reasons state whether the following statements are True or False: (10)
   i. Saw gin produces high production and high trash content as compared to the
      other ginning technologies.
   ii. Tension draft is required to develop proper flow of material without entanglement.
   iii. Open-end spun yarns are more hairy than ring spun yarns.
   iv. Combing is an essential sequence in processing long staple fibres.
   v. Web condensation is responsible to convert the film of fibres to Sliver.

Q.1.b. Define or explain the following terms: (10)
   i. Tinting.  ii. Porcupine opener

Q.2. Discuss in detail the necessity of having an opening and cleaning machines to process (16)
cotton fibres. Also explain what types and makes of opening and cleaning machines are
used in the present day spinning mills.

Q.3. a. Explain in brief the difference between blending and mixing. (08)
   b. Describe any one of the effective blending machines used in the modern
      blow room.

Q.4. With neat sketches, explain in detail the difference between chute feed and
conventional method of feeding to card. (16)

Q.5. With neat diagrams discuss in detail the web doffing devices present in the cotton
carding systems. (16)

Q.6. a. Explain in brief the principles and objectives of O-E spinning (08)
   b. Give classification, & with a neat sketch explain the passage of material
      through rotor open-end spinning machine.

Q.7. What are the objectives of speed frame? Briefly explain any one of the differential
motion mechanism as fitted to speed frame. (16)

Q.8. Write short notes on the following: (16)
   i. Tandem card. ii. Balanced doubled yarn.
   iii. Faulty packages of ring frame and remedial measures.
   iv Quality studies of OE yarn.