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. Define or explain the following terms:  
   i. Staple length.  
   ii. Blending.  
   iii. Merge number.  
   iv. Antistatic agents.  
   v. Synthetic fibres.

b. What are the difference between Mixing and Blending? When and how it is carried out in a Blow room.

Q.2 Discuss in detail the requirement, processing sequence, machine parameters for the manufacturing of 67/33 cotton/polyester blended yarn in the cotton system.

Q.3 How and when antistatic dressing agents are used in the processing 100 per cent polyester staple fibre in cotton system?

Q.4 Write minimum 20 lines information on the requirement of humidifiers in processing blended fibres.

Q.5 Discuss in brief the selection of Viscose staple fibre and processing sequence for 100 percent viscose staple fibre on cotton system.

Q.6 What type of card clothing is needed to process 100 percent man-made short staple fibres on cotton system? Also briefly explain the processing sequence for processing 85 / 15 percent cotton / viscose.

Q.7 Explain in detail the opening and cleaning beaters of blow room for Processing 100 per cent synthetic fibres.

Q.8 Write short notes on the following:  
   i. Problems and prevention of roller lapping.  
   ii. Blow room Vs Draw frame blending.  
   iii. Back row and front row roving.  
   iv. Spacers.