Q1. a. Define the following terms:  
   i. Total draft and Tension draft  
   ii. Neps and Noil  
   iii. Cotton Count and Worsted Count with formulae  
   iv. Ring and Traveller  
   v. Draft and Draft constant  
   b. Answer the following questions  
      i. Define Ginning. Explain saw roller gin with neat labelled diagram.  
      ii. What are the objectives of blow room? Explain the different types of opening action in blow room with neat labelled diagram.  

Q2. a. Explain the objective of card. Explain the working principle of Autoleveler on card.  
   b. Explain the different types of clothing of lickerin, cylinder and doffer mechanism.  

Q3. a. State the objectives of drawframe and also working mechanism of drawframe with neat labelled sketch.  
   b. Explain the long and short creel of drawframe with merits and demerits.  

Q4. a. What do you mean by fractional efficiency of comber?  
   b. Explain the detaching setting and its importance in comber.  

Q5. a. Explain the objective of speed frame. Explain the working procedure of 4/4 drafting system in speed frame with neat labelled diagram.  
   b. Describe with neat sketch working principle of ring spinning and objectives.  

Q6. a. What are the objectives of ring spinning? Explain modern development of ring spinning with neat sketch.  
   b. Explain the following:  
      i. Ring and Travelers  
      ii. Functions of lappets and separators.  

Q7. a. Describe the mechanism of cone winding mechanism with neat labelled sketch.  
   b. Explain Manual winding and Auto winding.  

Q8. a. Write short notes on the following (neat labelled diagram)  
   i. Electronic yarn clearers  
   ii. Open end spinning  
   iii. Blending and Mixing  
   iv. Grading of cotton