Fourth Semester
Textile Technology
Scheme July 2008
SPINNING PREPARATORY (401)

Time : Three Hours *Maximum Marks : 100*

Note : i) Attempt total six questions. Question No. **1** (Objective type) is compulsory. From the remaining questions attempt any five.

ii) Give sketch wherever necessary.

1. Write short answers of the following: 2 each
   a) Objects of autoleveller
   b) Functions of suction hood
   c) Objects of stop motions in a draw frame
   d) Functions of top comb in a comber
   e) Objects of nipper

2. a) What are the objects of draw frame? With the help of a labelled diagram. Describe the passage of material through a modern draw frame. 12
   b) Give the maintenance schedule of draw frame. 6

3. a) What are the objects of combing? With a neat sketch explain the working of Nasmith comber. 12
   b) What is index number? Explain. 6

4. a) What is draft? Sketch and explain Rieter polar drafting system. 8
   b) Discuss the various factors which affects roller setting in a draw frame. 10

5. a) The production of a D/F with 6 deliveries is 920 lbs in a shift of 8 hours. The sliver delivered is 60 grains/yard. If the efficiency is found to be 85% then calculate the speed of 1¼" diameter front roller. 10

   b) In a comber the linear density of lap fed is 70kg tex and 20% waste is extracted. If the comber delivers 7kg. tex silver, find the mechanical draft. The comber has 6 heads. 8

6. a) 24 card slivers each of 50 grains/yard are fed to a sliver lap machine giving 1.5 draft. The lap roller is of 12" diameter and runs at 40 r.p.m. Find the production/shift of 8 hours at 80% efficiency in kg. 9

   b) The front roller speed of a L.R. D/F is 1960 r.p.m. and its diameter is 38mm. The tension draft is 1.03. Calculate the production/machine of 2 deliveries for 8 hours with 80% efficiency and producing 0.13 hank of sliver. 9

7. a) With the help of a labelled diagram explain the working of a Ribbon Lap machine. 10

   b) Explain the salient features of modern comber. 8

8. Write short notes on any three of the following: 6 each

   a) 4/5 drafting system

   b) Sliver lap machine

   c) Comber waste

   d) Single delivery draw frame