Fifth Semester
Textile Technology
Scheme July 2008
SPINNING TECHNOLOGY (503)

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) Draw neat diagram wherever necessary.

1. Choose the correct answer. 2each

i) Cone profile in modern speed frame is
(a) Straight (b) Helical
(c) Hyperbolic (d) None of the above

ii) Pneumatic suction is commonly used in
(a) T.F.O.
(b) Fancy doubler
(c) Ring frame
(d) All of the above

iii) In UTM-620-104 drafting system top roller loading is done by means of
(a) Plate spring (b) Coiled spring
(c) Dead weight (d) None of the above

iv) Hairiness of ring spun yarn can be controlled by
(a) Reducing shore hardness of cots
(b) Increasing the twist per meter of yarn
(c) Replacing the burnt traveller
(d) Spacers

v) The separator in a ring frame is used in
(a) Twisting reaction (b) Creel
(c) Top arm (d) None of the above

2. a) What are the objects of Ring frame? Sketch and explain the passage of material through a modern Ring frame. 12

   b) Write notes on the maintenance schedule of Ring frame. 6

3. a) What is the object of doubling? With the help of neat sketches explain various types of doubling process. 9

   b) Describe the various causes of end breakages and yarn faults in Ring frame and also explain their remedies. 9

4. a) Sketch and explain the working and salient features of UTM-620-14 top arm drafting system. 12

   b) Write short notes on the desired properties of cots and aprons. 6

5. a) What are the objects of differential motion in a speed frame? Explain with neat sketch the working of any type of differential motion. 14

   b) Why are cone drums used in a speed frame? 4

6. a) The speed frame section has got 10 frames of 160 spindles running at 800 r.p.m. and producing 5.0 hank roving. The T.M. used is 1.4 and production per shift 1062 lbs for the section. Find the average efficiency of the machine for whole section. 12

   b) Mention the various faults in roving and give their remedies. 6

7. a) The 6.25 hank roving bobbin weighing 14 ozs. is fed to a ring frame which has 1" F.R. running at 126 r.p.m. The draft employed is 12.0. Find how long a roving bobbin will last. 12

   b) Explain the maintenance schedule of Ring frame. 6

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

   a) Anti wedge ring and elliptical traveller.

   b) Novelty yarns

   c) Principle of T.F.O. and its uses

   d) Spindle bolster

   e) Pneumatic arrangement of Ring frame