FIFTH SEMESTER
TEXTILE TECHNOLOGY
SCHEME JULY 2008
SPINNING TECHNOLOGY (503)

Time : Three Hours *Maximum Marks : 100*

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

1. Write short answers of the following : 2 each

   a) Object of solid leg in a flyer

   b) Function of traveller clearer

   c) Object of cone drums of a S/F

   d) Function of pendulum arm support rod

   e) Object of A.N.B.C ring

2. a) What are the objects of speed frame? Sketch and describe the passage of material through a modern S/F. 12

   b) Give the maintenance schedule of S/F. 6

3. a) Sketch and explain UTM-620-14 drafting system used in speed frame. How does it differ from UTM-620-104 drafting system. 12

   b) Sketch explain the winding principle of bobbin leading S/F. 6

4. What are the objects of building motion of a Ring Frame? How a cop is built? Sketch and describe. 18

5. a) Discuss the various types of rings and travellers used in a ring frame. 12

   b) Explain the principle involved in two for one twister. 6

6. a) An inter frame has 144 spindles and produces 2.3 hank roving giving 120kg/shift of 8 hours with 80% efficiency. Find the front roller speed when its diameter is $1\frac{1}{8}''$. 9

b) 60s yarn is produced with 3.9 T.M at 12500 spindle speed. Efficiency of the m/c is 91% and one doff requires 10 hours to complete. What is the length of yarn on the bobbin? 9

7. a) A ring frame runs at 12000 r.p.m. with front roller delivery of 400"/minute. If the bare bobbin diameter is 1" and ring diameter is $1\frac{5}{8}''$ what is the traveller r.p.m. and also calculate the traveller surface speed in feet/second. 9

b) What are the causes of end breakages in a ring frame? How will you rectify them? 9

8. Write short notes on any four of the following: 4½ each

a) Fancy yarn

b) SKF - Pk - 1600-40 drafting system

c) VPS drive

d) Flyer

e) Running in of new ring