# Third Semester
# Textile Technology
# Scheme July 2008
## INTRODUCTORY SPINNING (301)

***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. Choose the correct answer. 2 each

i) In a hopper bale breaker the stripping roller cleans the
   (a) Evener roller (b) Inclined lattice
   (c) Leather flap beater (d) None of the above

ii) For superfine variety of cotton the number of beating points in blow room should be
   (a) 2 (b) 3
   (c) 4 (d) 5

iii) In a modern blow room line the knocking of motion is replaced by
   (a) Aero feed systems to cards
   (b) Piano feed regulating motion
   (c) Automatic lap doffing mechanism
   (d) None of the above

iv) Name the system used for removing heavy impurities from cotton.
   (a) Spikes (b) Photo cell
   (c) Magnets (d) Gravity trap

v) Incarding the total number of operative flats is
   (a) 25 - 30% (b) 40 - 45%
   (c) 75 - 80% (d) 99 - 100%

2. a) Sketch and explain the working of hopper bale breaker. 9

b) With the help of a neat sketch explain the working of McCarthy Ginning machine. 9

3. a) Discuss the various methods of stripping for cleaning cylinder and doffer wire. 10
   b) What are the objects of mixing? Name various mixing methods and explain any one of them. 8

4. a) What are the objects of carding? Sketch and explain the passage of material through a carding machine. 10
   b) Sketch and explain the working of India Roll doffing device. 8

5. a) Explain the objects of Blow room. Show the block diagram for the sequence of blow room machines for spinning medium count. Also show the by pass arrangement. 9
   b) Sketch and explain the working of Automixer. 9

6. a) Find out the production of a scutcher in 8 hours shift if the speed of the 7" calendar roller is 11.5 rpm. Draft between calendar roller and 9" diameter lap roller is 1.03. Hank of the lap feed is 0.00146. Time lost during doffing and other operations is 9%. 9
   b) The cleaning efficiency for certain mixing was found out. blow room cleaning efficiency was 80% whereas card cleaning efficiency was 70%. What is the combined total cleaning? 9

7. a) A 14 Ozs. lap is fed to a card with a mechanical draft of 100. The total waste removed at the card is 5%. Calculate the hank of the sliver and also weight per 6 yards wrappings. 12
   b) The lap fed to a card has a mass of 600 gms/metre. The linear density of the card sliver delivered is 5K.tex. What is the draft in the card? 6

8. Write short notes on any three of the following. 6 each
   a) Maintenance schedule of Blow room
   b) Various types of cotton used in spinning
   c) Carding defects and their remedies
   d) Step cleaner
   e) High production card