

9/2/19 ✓

akscavinid
24/5/19

**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 is compulsory. From the remaining questions attempt any five.
ii) Give sketch wherever necessary.

1. Write short answers of the following: 2 each
 - a) Differentiate between calendar roller and scroll roller of a Blow room.
 - b) Object of percentage plate.
 - c) Function of baffle plate in a Step cleaner.
 - d) Object of knife roller in a Knife Roller Gin.
 - e) Compare cylinder wire and doffer wire.

2. a) With a help of a neat and labeled sketch describe the passage of material through a Kirschner beater. 9
 b) Discuss the various types of wires that are used in licker-in, cylinder and doffer. 9

3. a) Sketch and explain the working of a McCarthy Gin. 9
 b) Sketch and explain the Can and Coiler mechanism of a carding machine. 9

4. a) What are the main defects in a carding web? Explain how they are removed. 10
 b) Calculate the hank delivered in a finisher scutcher to which laps of 14.5 oz/yard are fed. The draft between feed roller and calendar roller is 3.7, the tension draft between calendar roller and lap roller is 1.06. Waste is 2%. 8

5. a) Calculate the production of a card per hour if the draft between the lap roller and doffer is 90. The draft between doffer and calendar roller is 1.02. Draft between calendar roller and coiler calendar roller is 1.05. Hank of lap fed = 0.00146. Waste = 4%. The 27" diameter doffer is running at 12 r.p.m with an efficiency of 90%. 10
- b) If the draft content in a carding machine is 1624 and the draft in the machine is 98, find the necessary draft change wheel. If the draft change wheel is changed over to 24T. What is the draft? 8
6. a) With the help of a neat and labeled sketch explain the working of a Hopper Bale Breaker. 9
- b) Sketch and explain the working of a Cross-Roll Verga web doffing device. 9
7. a) What is card stripping and card grinding? Give different methods of both and explain. 10
- b) Sketch and explain the working of a monocylinder cleaner. 8
8. Write short notes on any four of the following. 4½ each
- a) Features of modern card
 - b) Auto Mixer
 - c) Cylinder under casing
 - d) Bin mixing
 - e) Feed plate of a carding machine
 - f) Maintenance schedule of Blow Room

