



SE-8311

B. E. III (Sem. V) (T. T.) Examination
May / June – 2011
Yarn Manufacturing - III
(New Course)

Time : 3 Hours]

[Total Marks : 100

Instruction :

નીચે દર્શાવેલ નિશાનીવાળી વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fillup strictly the details of signs on your answer book.

Name of the Examination :
B. E. 3 (Sem. 5) (T.T.)

Name of the Subject :
Yarn Manufacturing - 3 (New)

Subject Code No. : **8 3 1 1** Section No. (1, 2,.....) : **1&2**

Seat No. :

Student's Signature

1. Answers to the two sections must be written in separate answer books.
2. Figures to the right indicate full marks.
3. Tie two sections separately.

SECTION I

- 1 (a) Answer in brief :
- i. What should be the ratio of Ring diameter : tube height in Ring spinning? [01]
 - ii. How much is the hardness of ring? [01]
 - iii. Enlist the important characteristics of cots. [03]
 - iv. Enlist the advantage of half round wire section of traveler. [03]
 - v. Define Coriolis force. [02]
- (b) Describe the method of manufacture of ring. [10]

- 2.(a) What is 'Overhang' in relation to the drafting system of a Ring frame? [05]
Why it is essential to always incorporate around 2-3mm overhang at the front roller?
- (b) Discuss the features of Rieter Orbit Ring system. [10]

OR

- 2 (a) Discuss the effect of air-drag on yarn tension. [05]
- (b) The drafting rollers are delivering material at 18mt/min, spindles are rotating at 18000 rpm and the ring tube package diameter on spindle is 40 mm. Calculate out the traveler lag. [10]

3. Write short notes : (ANY THREE) [15]
- i. Traveler clearer
 - ii. Benefits claimed from compact spinning
 - iii. Advantages of IMDS
 - iv. Balloon control rings

SECTION II

- 4 (a) State whether True or false : [04]
- i. More the number of fibre ends for a given weight of raw material the more the hairiness.
 - ii. It is not advisable to use balloon control rings for longer lifts and higher spindle speeds.
 - iii. Nickel plating and silver plating of travelers also helps in reducing the rate of wear and burning of the travelers.
 - iv. 100% Polyester yarns are more irregular as compared to 100% viscose rayon.
- (b) Discuss in brief about ISM- Individual Spindle Monitoring. [05]
- (c) Which is the preferable count & material for running-in of rings? [02]
- (d) Discuss in brief about ROBOLoad. [05]
- (e) Answer the Following:
- i. If Single yarn of 20s Ne & 30s Ne are doubled, what will be the resultant count? [1]
 - ii. List out different types of Fancy yarns produced with the help of Doubler machine [3]
5. (a) With a neat sketch describe Wet doubling. [10]
- (b) Discuss the importance of Tension control & its effect in doubling. [5]
- OR**
5. (a) Describe manufacturing of sewing threads briefly. [7]
- (b) Describe Two for One Twister briefly with neat sketch. [8]
6. Write Short Notes (ANY THREE) [15]
- i. Objects of doubling
 - ii. Manufacturing of Single Spot yarn
 - iii. Manufacturing of loop yarn
 - iv. Defects and remedies on doubler