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SE-6901

B. E. III (Sem. V) (Textile Technology) Examination

April / May – 2011

Yarn Manufacturing - III

Time : **3** Hours] [Total Marks : **100**

Instructions :

(1)

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) (Textile Technology)**

Name of the Subject :

☛ **Yarn Manufacturing - III**

☛Subject Code No. : **6 9 0 1** ☛Section No. (1, 2,.....) : **1&2**

Seat No. :

Student's Signature

(2) Answer to the two section must be written in separate answer books.

(3) Figures to the right indicate full marks.

(4) Tie two sections separately.

SECTION-I

1 (a) Answer in brief :

(i) Why running-in of rings in required ? **2**

(ii) Which is the preferable count and material for running-in of rigns ? **2**

(iii) What will happen if the setting between traveller clearer and traveller is too close ? **1**

(iv) Enlist the commonly used winds or builds for spinning. **2**

(v) Define : Traveller count. **3**

(b) What are the drawbacks of casablanca drafting ? **5**

(c) Enlist the benefits of compact spinning. **5**

2 (a) Enlist the limitations of the conventional ring and C-shaped traveller. **5**

(b) Describe the method of ring manufacture. **10**

OR

2 (a) Discuss in brief the implication of spinning triangle. **5**

(b) Discuss in detail developments in drafting at Ring frame. **10**

3 Write short notes on : (any **three**) **15**

(i) Orbit rings

(ii) Tangential belt drive

(iii) Balloon control system

(iv) Fibre guiding devices.

SECTION : II

4 (a) Fill up the blanks : **5**

(i) The tenacity of the doubled yarns is about _____ percent higher than the single yarn.

(ii) Doubling reduces count CV% by _____ %.

(iii) Doubling improves U% by _____ times.

(iv) Doubling decreases yarn hairiness to an extent of _____.

(v) Doubling reduces classimat objectionable and drafting faults by _____ %.

(b) Discuss about loop yarn. **5**

(c) Compare properties of yarn produced by dry doubling and wet doubling. **5**

(d) Answer the following :

(i) Write the equation to calculate production of rotor spinning machines. **2**

(ii) Only list out the changes required in machine parameters for processing man made fibers on rotor. **2**

(iii) What is the count range of rotor spinning ? **1**

5 (a) Discuss the economic aspects and quality aspect of rotor spinning briefly. **12**

(b) Draw structure of rotor yarn and explain briefly. **3**

OR

5 (a) Describe integration of Hooked fibers in rotor yarns. **10**

(b) Describe integration of class II fibers in rotor yarn briefly. **5**

6 Write short notes : (any **three**) **15**

(i) Features of blow room line required for rotor spinning

(ii) Fiber parameters to be considered while processing manmade fibers on rotor spinning

(iii) Features of modern rotors

(iv) Comparison of properties of ring yarn as against yarns.
