**Minor Test II** **TXL 222 Yarn Manufacture II**

**Total marks = 25**

**INSTRUCTION** **Date : 04.10.2018**

- Answer all questions
- Hand writing should be legible
- Do not write on the back side of the front page of answer sheet
- Answers should be properly numbered
- Do not miss to write your entry number

Q1. Choose the correct choice / choices 1 x 5 = 5

(i) *Typical roving twist is*
A. 60 turns/inch B. 60 turns /cm C. 60 turns /m D. None

(ii) *Number of spindles in commercial roving frame is*
A. 60 B. 120 C. 240 D. 480

(iii) *Roving is slightly twisted to make it*
A. round B. strong C. reduce hairiness D. increase package content

(iv) *The draft used in roving frame is usually*
A. 12 B. 8 C. 24 D. 4

(v) *Elements of drafting unit are*
A. cradle B. spacer C. presser D. Nose bar

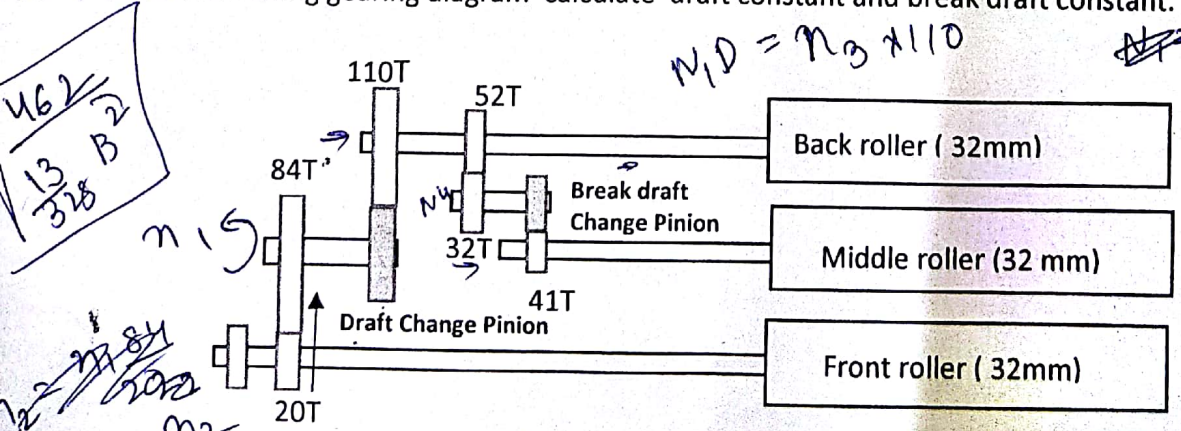
Q2. (i) Explain the limitations of high and low draft in roving frame.
(ii) For laying roving on bobbin surface, the bobbin rail traverses up & down. Why not spindles?
(iii) Spacers are given reciprocating motion. Why?
(iv) Explain the purpose of differential drive (2.5 × 4 = 10)

Q3. A sliver is fed at the rate of 2.5 m/min to the drafting unit of a roving frame. The frame is producing a roving of 500 tex from a sliver of 5 Ktex. The spindle speed is 1000 rpm .

(i) Determine twist /m in the roving?
(ii) If bobbin diameter is 5.0 cm, what would be the bobbin speed ( rpm)?
(iii) Calculate bobbin rail speed assuming roving diameter to be 1.5mm.

( 2 × 3 = 6)

Q.4. From the flowing gearing diagram calculate draft constant and break draft constant.

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