Minor-II TXL 111 (Textile Fibres)

4-10-2017 **Max Marks-20** **11.00-12.00 noon** **LH-114**

Attempt all questions.

Dept maar li hoti toh ye chutiyapa nahi jhelna padta.

1. Define elastic recovery with a neat diagram. [2]
2. Cotton does not melt on heating. Outline the reasons. [2]
3. Wool is highly hygroscopic fibre. However, even after removal of all natural impurities, it does not absorb liquid water. Comment? [2]
4. What is responsible for high moisture regain of wool? [2]
5. How does composition and distribution of ortho and paracortical cells in a wool fibre affect its crimp?
6. What does the term the term "Active Heating" mean in context of wool? [1]
7. What is LOI? How much is the value of LOI for wool? What inference can you draw from it? [3]
8. What is retting? What may be limitations of natural retting? [1]
9. With the help of neat diagram, describe the formation of nanocrystals when cotton is exposed to strong acidic treatment? [2]

10. **Fill in the blanks:** [0.5x4]

i. The amino acid present in wool but absent in silk is _____

ii. As the fineness of wool fibre increases, its crimp _____

iii. In wet state, the strength of cotton fibre is _____ and its elongation is_____ as compared to its dry state.

iv. The strongest natural fibre is _____

11. **Match the following** [1]

Sr No	Fibre/Material	Attribute
1	Wool	Aspartic acid
2	Silk	Beta sheet
3	Jute	High lignin content
4	Flax	Flame retardant
5	Sericin	Ultimates