TXL221: Yarn Manufacture I

Minor Test II

Full Marks: 30

Date: March 26, 2018, Monday

Time: 4 pm – 5 pm, Venue: LH325

Section B (Time: 4:15 pm to 5:00 pm)

Q1. (a) Show the teeth arrangements of two surfaces displaying carding action and stripping action respectively. (b) The transfer of fibres from cylinder to doffer cannot be effected through stripping action. Justify this statement. (c) Mention two disadvantages associated with the transfer of fibers from cylinder to doffer through carding action. **2+2+2**

Q2. A taker-in of 10 inch diameter & 40 inch length and having 25 teeth per square inch is rotating at an angular velocity of 600 rpm. A lap of 490 Ktex linear density, consisting of fibers of 1 inch length and 6 denier fineness, is fed to taker-in at a rate of 26 inch/min. Calculate the opening intensity of the taker-in. **3**

Q3. Suppose, during every revolution of cylinder, a constant amount (10 g) of fiber material is fed to cylinder and the cylinder delivers a constant amount (1 g) of fiber material to doffer. (a) Calculate cylinder loads (in g) after 10^{th} revolution and after infinite revolution of the cylinder. (b) What would be the cylinder load (in g) after 10^{th} revolution of the cylinder, if the feed was disengaged after the first revolution of the cylinder? **4+2**

Transfer coeff = 0.1

[End of Question Paper]