

TTL722 MECHANICS OF SPINNING PROCESS

MAJOR II Date: 01/12/2006 (Friday); 8.00-10.00 AM; Venue: TX120

- 1) What is the mechanism and role of false twist on production of in roving?
- 2) Compare the forward and backward movement of flats.
- 3) How do trailing and leading hooks (both without reversal) form during fibre transfer in carding machine?
- 4) Discuss the design approaches adapted in designing ring and travelers.
- 5) What is the role of nozzles in air-jet spinning in delaying fibre arrival and imparting false twist to yarn?
- 6) Prove that Balloon tension is $\mu_{RT} M_T R \omega_T^2 / k \sin \alpha$. The notations are: μ_{RT} , M_T , R , ω_T , k and α are Ring-traveller coefficient of friction, Traveller mass, Ring diameter, Traveller rotational speed, Ratio of winding and balloon tensions, and Winding angle respectively.

(15 marks)

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