

Mansoura University	Final Term Exam Jan., 2013	Theory of Spinning (1) Part [II]
Faculty of Engineering		Time: 90 min
Text. Dept.		Degree: 35

Answer the following Questions:

- 1) a) Explain mathematically the effect of doubling on sliver irregularity.
b) Differentiate between theoretical irregularity and ideal irregularity.
A ring yarn with count Nm 50 has an irregularity 14 %.
Calculate the index of irregularity if the fibre count Nm 5000

- 2) a) Discuss the movement of controlled fibres in 3/3 drafting system.
b) Explain the effect of detachment setting and feed distance on the elimination of noil in the French combing m/c.
Apply the above relations to compare the noil P % by forward and backward feeding principles if you have the following data:
 - feed length = 5 mm
 - detachment setting = 15 mm
 - max. fibre length = 38 mm.

- 3) a) Describe the drafting operation in the drafting arrangement showing the forces acting on the fibre during drafting and the factors affecting it.
b) "The friction field is extremely improved for drafting behavior".
Discuss the statement stating the factors effecting the friction field.

Best Wishes.

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