

05_Glossary.pdf

Programme: Bachelor of Science (Third year)

Subject: Botany

Paper Code: BOC 109

Title of the unit: The structures of DNA and RNA/Genetic material.

Name of the module: Denaturation, Renaturation of DNA, Cot curves and its significance.

Paper Title: Molecular Biology and Genetic Engineering

Name of the Presenter: Dr. Annie F. D'Souza e Gomes

Glossary of terms/words:

Denaturation: Denaturation is a process in which the hydrogen bonds between the base pairs of the two strands are broken giving rise to two single strands.

Renaturation: Renaturation is a process which occurs when the denatured DNA strands are cooled under suitable conditions.

Cot: C_0 is the concentration of double stranded DNA prior to denaturation, and t , the duration of the renaturation in seconds.

Cot value: Cot value is thus a product of C_0 (initial concentration of DNA), t (time in Seconds).

Cot curve: The extent of renaturation when plotted against $\log C_0t$, gives a sigmoid curve which is known as C_0t curve.

Possible misconceptions/ clarification: -----

Case studies and additional examples/illustrations: -----

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