

LS2202 - Molecular

Genetics

1st Jan 2024

Midsem - 20

Endsem - 50

Internal → 15 RD → Class Test
→ 15 MT → Assignment.

Nomenclature must be clear.

⊕ Phosphodiester bonds cannot be broken by heating, but H-bonds can be broken - denaturing DNA (Single stranded DNA will form).

⊗ RNA can form internal structures in 1 strand.



⊗ RNA in alkaline condition deprotonates and fragments. DNA is stable as it has no 2' position -OH, and thus it was evolutionarily chosen as genetic material.

⊗ polysaccharide capsule absorbs water, making it slimy and difficult for ^{phagocytes} ~~microphages~~ to identify them and engulf.

This is why S-strain *Streptococcus pneumoniae* is infectious, whereas R-strain is not infectious - it is easy to engulf.