

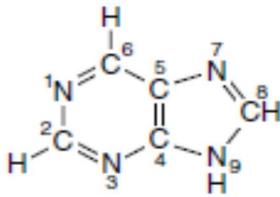
الحوامض النووية

Nucleic acid

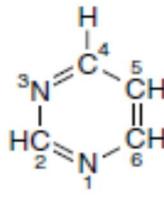
. Mg⁺²

- () DNA ó Deoxy Ribo Nucleic Acid •
() RNA ó Ribo Nucleic Acid •

القواعد النيتروجينية Nitrogen Base



Purine



Pyrimidine

:A البيرميدينات Pyrimidine :

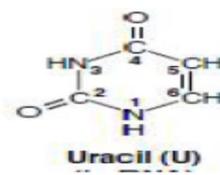
(U)

(C)

(T)

RNA

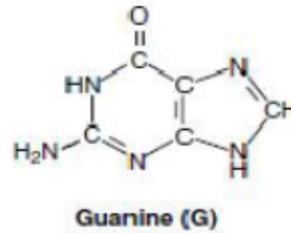
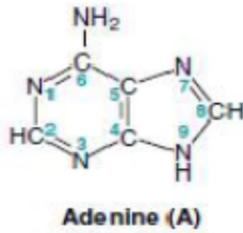
DNA



Pyrimidines

B: البيورينات Purine :

DNA , RNA



Purines

السكر الخماسي Pentose sugar

RNA

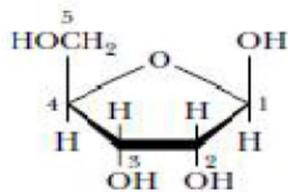
DNA

Ribose

D

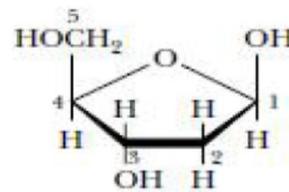
Deoxyribose

Deoxyribose Ribose



Furanose form of D-Ribose

β -D-Ribofuranose



Furanose form of D-2-Deoxyribose

β -D-2-Deoxyribofuranose

(Phospho-ester linkage)

Deoxyribose

. (5,3)

(5,3)

. DNA

النوكليوسيدات Nucleosides

(Glycoside linkage)
(9) N

(1) N (1)

Nucleotides النيوكليو تيدات

2⁻, 3⁻, 5⁻ RNA
3⁻, 5⁻ DNA

Co-enzyme

Polynucleotide

1,2,3,4,5

[2⁻, 3⁻, 4⁻, 5⁻ (-)