

6 Nucleic acids – Part 1 — Answers

Answers

Work through these after trying the questions yourself.

6.1 A phosphate group, a (5-carbon) sugar, and a base.

6.2 (a) thymine \ (b) guanine.

6.3 The C–G pair (three hydrogen bonds).

6.4 The two strands run in opposite directions (one $5' \rightarrow 3'$, the other $3' \rightarrow 5'$).

6.5 Each new DNA molecule is made of one original (old) strand and one newly made strand — half of the old molecule is kept.

6.6 DNA polymerase.

6.7 T–A–C–G–G. Each base pairs with its complement (A with T, T with A, G with C, C with G), so A–T–G–C–C becomes T–A–C–G–G.