

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.