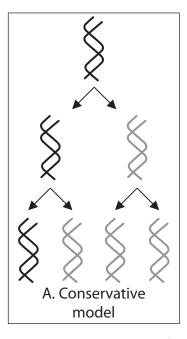
- DNA is a polymer made from monomers called nucleotides.
  - (a) Describe how nucleotides join together to form DNA.

(2)

(b) Different theories for DNA replication have been suggested. Figure 1 illustrates two of these theories.



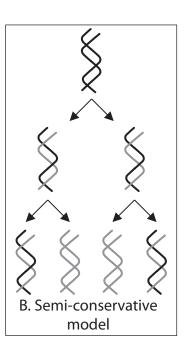
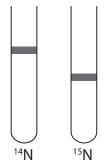


Figure 1

Meselson and Stahl carried out experiments to test these theories for DNA replication.

Figure 2 shows the results from one of their experiments.

DNA from bacteria grown in <sup>14</sup>N and <sup>15</sup>N



DNA samples taken from bacteria after the addition of an excess of <sup>14</sup>N to cells growing in <sup>15</sup>N

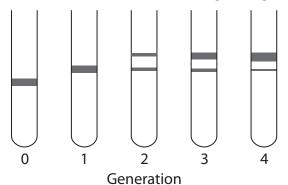


Figure 2

Tor Driver replication	on and rejected the	e outen	(4)



(3)

(Total for Question 7 = 9 marks)

(c) The diagram shows the structure of ATP.

$$\begin{array}{c} & & & \\ & &$$

Compare and contrast the structure of ATP and a DNA nucleotide	e.
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