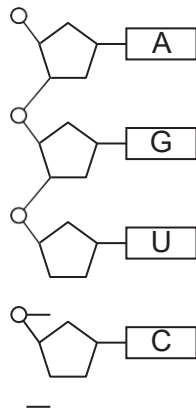


**GCSE Biology B (Twenty First Century Science)**  
**J257/03 Breadth in Biology (Higher)**

**Question Set 30**

- 1 (a) In protein synthesis a section of one strand of DNA is copied and a molecule of mRNA is formed.

The diagram shows a molecule of mRNA.



Compare the structure of mRNA to the structure of DNA.

[2]

- (b) Genetic variants can be found in both coding and non-coding DNA.

Complete the sentences to describe the effect of genetic variants in non-coding DNA.

Use words from the list.

You can use each word once, more than once, or not at all.

**base      DNA      gene      genotype**  
**mutation      phenotype      sugar      protein**

Some sections of DNA do not code for a .....

Non-coding DNA controls whether a particular gene is expressed.

If there is a ..... in the non-coding DNA, particular proteins will not be made.

The absence of particular proteins could alter the .....of the individual.

[3]

**Total Marks for Question Set 30: 5**

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