AQA – Biological Molecules – AS Biology P1

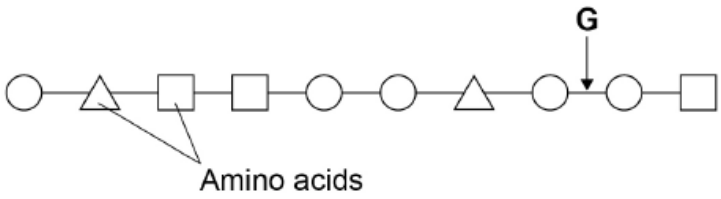
1. June/2021/Paper_1/No.5

0 5 . 1 Describe how the structure of glycogen is related to its function.

[4 marks]

Figure 5 shows the primary structure of part of a polypeptide. Each shape represents an amino acid. Identical amino acids have the same shape.

Figure 5



0 5 . 2 Name the type of peptidase which will hydrolyse the bond labelled **G** in **Figure 5**.

[1 mark]

0 5 . 3 Give the number of different **R** groups in the polypeptide shown in **Figure 5**.

[1 mark]

A scientist used an enzyme to digest a polypeptide containing 101 amino acids. The digestion produced a range of smaller polypeptides.

The scientist determined the number of amino acids in each of the polypeptides produced. He also counted the number of polypeptides of each length.

Table 1 shows some of the scientist's results.

Table 1

Number of amino acids in polypeptide	Number of polypeptides of each length
5	2
6	
15	3
20	

0 5 . 4 Use the information in **Table 1** to calculate the number of polypeptides:

[2 marks]

6 amino acids in length _____

20 amino acids in length _____