

AQA, OCR, Edexcel

A Level

A Level Biology

**Nucleic Acids and DNA
Replication Answers**

Name:

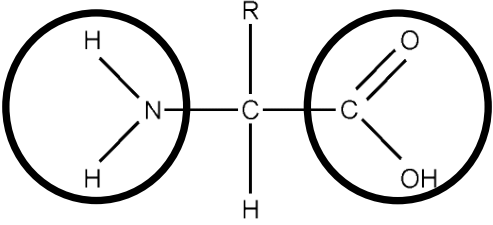
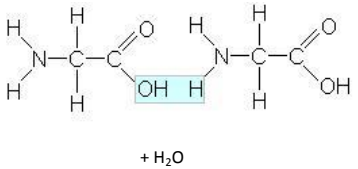
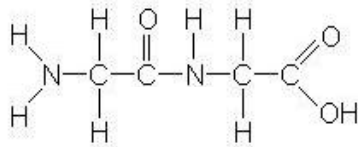
M

M

E

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Total Marks: /25

| Answer | Marks |
|--|---|
| <p>1.</p> <p>a)</p> <p>i)</p>  <p>Amino group Carboxyl Group</p> <p>ii) -Variable group -gives each amino acid its specific characteristics</p> <p>b)</p> <p>i)</p>  <p>+ H₂O</p> <p>ii) Peptide bond</p> <p>iii)</p>  <p>iv) A reaction in which water is used to break a bond.</p> | <p>2 marks</p> <p>2 marks</p> <p>3 marks</p> <p>1 mark</p> <p>2 marks</p> <p>1 mark</p> |

| | |
|--|---|
| <p>2.</p> <p>a) i) - A chain of amino acids in a specific order - Joined together by peptide bonds</p> <p>ii) - α helix - β pleated sheet</p> <p>iii) - Disulphide bonds - Ionic bonds - Hydrogen bonds</p> <p>iv) - When two or more polypeptide are joined together to form a protein</p> <p>v) <u>Any one from:</u> - Haemoglobin - Myoglobin - Antibodies - Hormones</p> <p>and</p> <p><u>Any one from:</u> - keratin - collagen - elastin - troponin - myosin</p> | <p>2 marks</p> <p>2 marks</p> <p>2 marks</p> <p>2 marks</p> <p>1 mark</p> <p>1 mark</p> |
| <p>3.</p> <p>i) Biuret test</p> <p>ii) - sample is mixed with an equal volume of sodium/potassium hydroxide - a few drops of copper sulphate is added - Purple colour change</p> | <p>1 mark</p> <p>3 marks</p> |