**WORKING MUSCLES REVISION 2014 WACE**

**Question 32 (14 marks) 8 of these marks are on muscles + 6 on DNA**

Part (a) of the question refers to the diagram below.



1. The diagram represents the sliding filament model of muscle contraction. A sarcomere in a skeletal muscle is shown in the relaxed position.
2. Identify the proteins labelled as A and B in the diagram. (2 marks)

A

B

1. In the box below, accurately draw the same sarcomere as it would appear when the muscle is contracted. (2 marks)

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|  |

1. Explain what has happened to cause the change you have shown in the diagram between the relaxed and contracted positions of the sarcomere. (2 marks)
2. Apart from skeletal muscle, there are two other muscle types in the human body. Name **one** other muscle type and state **one** way in which the structure of this type of muscle differs from skeletal muscle. (2 marks)

Q40 WACE 2013

# Question 40 (20 marks)

1. Outline the events involved in the nervous stimulation and subsequent contraction of skeletal muscle. In your answer include the role of calcium ions. (9 marks)
2. Explain how blood flow increases to working skeletal muscles during exercise. (11 marks)