**Human Biology – ATAR Year 11**

**Task 7** – Unit 1 Assessment type: Extended response

Conditions Time for the task:

• Part 1: Three days to research topic and complete notes

• Part 2: Forty minutes for in-class validation – extended response exam style question

Task weighting 7.5% of the school mark for this pair of units

TASK: Research the following two questions. On the 20/7/17 you will have 40 minutes to write an extended response to one of the questions. The teacher will choose which of the questions immediately before. No notes are allowed during the extended response. Research notes (5 marks)

Illustrate your answers with diagrams where appropriate. Up two marks may be deducted for poorly structured answers: that is, answers in point form or diagrams not explained in the text of your answers. **Do not write answers in pencil**. Write your answer on the lined paper provided.

Question1 (20 marks)

1. The most common type of joint in the human body is the synovial joint. List the components of the knee joint and for each component describe its role and function in articulation about the joint.

(15 marks)

1. Osteoarthritis is a disease that is becoming more prevalent in many countries. Explain the impact osteoarthritis would have on knee joint. (5 marks)

Question 2 (20 marks)

(a) Name and describe how the THREE types of muscle tissue involved in: peristalsis within the alimentary canal, the beating of heart muscle and the movement of your arms, differ.

(9 marks)

(b) Using your understanding of antagonistic muscles, explain how flexion of the arm is brought about.

(6 marks)

(c) Using the sliding filament model explain how muscles contract and relax.

(5 marks)