**ST MARY’S UNIVERSITY**

**TWICKENHAM, LONDON**

MSc Degree Examination students registered for

Level **SEVEN**

Title: **Clinical Anatomy and Physiology**

Code: **SPR7013**

Semester: **ONE**

Date: **January 17th 2019**

Time: **9.30AM– 12.30PM**

TIME ALLOWED: **THREE** HOURS

Answer **BOTH** sections.

Section A- Answer **TWO** questions

1. Explain the process of bone healing post fracture (25 marks). What are the potential clinical complications of fractures (10 marks)?
2. Describe the mechanical and proprioceptive properties of ligaments (10 marks). Discuss how, through the healing process, these properties are affected (25 marks).
3. Detail the pathophysiological processes described in Cook and Purdam’s tendinopathy continuum model giving a breakdown of each stage (25 marks). Discuss how the management of a patient may differ depending on the stage of the tendinopathy continuum which they present in (10 marks).

Section B- Answer **ALL THREE** questions

1. Lower limb:

Analyse the functional anatomy of the knee joint ligaments. Explain their role in the locking mechanism of the knee (10 marks)

1. Upper limb:

Identify and describe the rotator cuff muscle group. How does their location determine their functional role? (10 marks)

1. Trunk:

A typical spinal segment varies throughout the vertebral column in relation to their function. Identify the typical components of a spinal motion segment, then compare and contrast how a spinal segment in the Cervical Spine (C3-C7) and Lumbar Spine differ in their application to function (10 marks).