ST MARY’S UNIVERSITY

TWICKENHAM, LONDON

MSc Degree Examination students registered for

Level **SEVEN**

Title: **Advanced Sport and Exercise Physiology**

Code: **ASE7002**

Semester: **ONE**

Date: **January 14th 2019**

Time: **9:30 – 11:30AM**

TIME ALLOWED: **TWO** HOURS

Answer **TWO** questions, each in a **SEPARATE** answer booklet. Calculators can be used during the exam

1. Heat acclimation is a process used by athletes to prepare for training or competition. Using physiological reasoning, explain:
2. Why environmental heat combined with exercise limits performance (50%)
3. How heat acclimation can be conducted and how it might counteract the negative effects of heat stress on athletes (50%)
4. **a)** Describe the physiological determinants of Marathon performance (50%) and b) what the likely causes of fatigue are during this type of event (50%).
5. **a)** Define strength and power in the context of athletic performance (50%)

**b)** Describe the determinants of strength and power for an athlete (50%).

1. **a)** Describe, in detail, the heat balance equation (50%) and **b)** Explain how **one** form of cooling strategy can be used to manipulate this equation and assist in thermoregulation in the heat (50%).

**END OF EXAMINATION**