ST MARY’S UNIVERSITY

TWICKENHAM, LONDON

BA/BSc/BA (ITT) Degree Examination students registered for

Level **SIX**

Title: **Clinical Exercise Physiology**

Code: **HEP6007**

Semester: **Resit**

Date: **01 July 2019**

Time: **13:30-15:30pm**

TIME ALLOWED: **TWO** HOURS

Answer any **FOUR** questions. Do **NOT** answer more than **FOUR** questions.

1. From a health perspective, discuss why the measurement or estimation of an individual’s VO2 max is important. Use research to support your answer. (25)

2. During a graded exercise test (GXT), the ‘ventilatory threshold’ (VT1) can be identified. Explain the physiological mechanisms that cause this threshold to be reached during incremental exercise. Critically discuss how this threshold can be used as an indicator of cardiorespiratory fitness. (25)

3. In relation to the endothelium, discuss the physiological rationale for prescribing exercise to a patient with cardiovascular disease. Use research to support your answer. (25)

4. With reference to hormonal and cytokine changes that occur with ageing, discuss the pathophysiology of sarcopenic obesity and how resistance training can be implemented to reduce the severity of this condition. Use research to support your answer. (25)

5. Define two fundamental physiological determinants of an individual’s VO2 max. Critically discuss which of these physiological factors limits VO2 max amongst individuals without metabolic disease (25)

6. Critically discuss the clinical rationale for measuring blood lipids in clinical practice. Use research to support your answer. (25)

**END OF EXAMINATION**