

UNIVERSITY COLLEGE LONDON

University of London

EXAMINATION FOR INTERNAL STUDENTS

For The Following Qualification:-

B.Sc.

Health Sciences HSC36: Podiatric Anatomy and Biomechanics (II)

COURSE CODE : HESC0036

UNIT VALUE : 0.50

DATE : 21-MAY-04

TIME : 14.30

TIME ALLOWED : 2 Hours

HSC36 PODIATRIC ANATOMY AND BIOMECHANICS UNIT (II)
Second year examination (2 hours)
May 2004

Answer one question from each section.

Answer four questions in total.

Answer each question in a new answer booklet.

Section A Neuroanatomy

- 1 a) Draw a labelled diagram to represent a transverse section through the cervical spinal cord. Indicate the location of the corticospinal tracts, the spinothalamic tract and the cuneate and gracile fasciculi. (10)
- b) Write short notes on the organisation and function of the basal ganglia. Illustrate with diagrams if you wish. (10)
- 2 a) Draw a labelled diagram to illustrate a section through the medulla oblongata. Indicate the location of the pyramids, the gracile and cuneate fasciculi, the gracile and cuneate nuclei and the medial lemniscus. (10)
- b) Write short notes on the anatomy and function of the corticospinal tract. Illustrate with diagrams if you wish. (10)

Section B Pathomechanics

- 1 Ankle equinus is frequently encountered in the clinical situation.
 - a) Describe the different types of equinus. In the answer explain how to distinguish between the different types of this condition. (16)
 - b) Describe the management of ankle equinus. (4)
- 2 Rigid forefoot valgus is usually associated with severe chronic secondary pathologies.
 - a) Describe how compensation for forefoot valgus gives rise to chronic secondary pathologies. (12)
 - b) Outline the management of a case of forefoot valgus in a 50 year old woman. (8)

TURN OVER

Section C Anatomy

- 1 a) Describe in detail and with the use of diagrams, the course of the sciatic nerve, its distal branches and the muscle groups it supplies. (14)
b) What would be the consequences of lower motor neurone paralysis of the common peroneal nerve? (6)
- 2 Describe in detail the anatomy around the first metatarsophalangeal joint and Hallux. (20)
- 3 Describe in detail the anatomy of the medial longitudinal arch. (10)
Discuss the function of the Medial longitudinal arch. (10)

Section D Functional Anatomy

- 1 a) Describe in detail the internal and external structures that are responsible for aiding the stability of the knee. (12)
b) Why is the foot often involved in knee pathology? (8)
- 2 Discuss the sagittal and frontal plane motion of the foot during the stance phase of gait concentrating on the ankle, subtalar and 1st MTP joint. Include in the answer when the motion occurs, why it occurs, how it occurs and what controls it. (20)

END OF PAPER