

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 : 30-APR-03

TIME : 14.30

TIME ALLOWED : 2 Hours

HSC 36 PODIATRIC ANATOMY AND BIOMECHANICS UNIT (II)**Second year examination (2 hours)****May 2003****Answer one question from each section.****Answer four questions in total.****Answer each question on a new sheet of paper.****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.
b) Write short notes on the anatomy and function of the cerebellum. Illustrate with diagrams if you wish. (20)
- 2 a) Draw a labelled diagram to illustrate a section through the midbrain. Indicate the location of corticospinal axons, corticopontine axons and the substantia nigra.
b) Write short notes on the anatomy and function of the corticospinal tract. Illustrate with diagrams if you wish. (20)

Section B Pathomechanics

- 1 Forefoot varus and forefoot supinatus have the same clinical appearance.
a) Define forefoot supinatus. (3)
b) What is the differential diagnosis between forefoot varus and forefoot supinatus? (5)
c) Describe the podiatric management of a case of forefoot supinatus in an 18-year-old male patient who complains of pain in the front of the leg. (12)
- 2 Ankle equinus is often a cause of foot pathologies.
a) Describe the possible causes of ankle equinus. (5)
b) Ankle equinus has been diagnosed in a 50-year-old female patient complaining of foot pain. Describe the factors to be considered in coming to this diagnosis. In the answer include other factors taken into consideration to achieve the most likely aetiology of ankle equinus in this patient. (12)
c) Describe the management of this case of ankle equinus. (3)

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 tibial nerve? (6)
- 2 Describe in detail the anatomy around the first metatarsophalangeal joint and Hallux. (20)
- 3 Describe the intrinsic musculature of the foot. (10)
- Discuss the main functions of the intrinsic musculature. (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) Describe the motion of the knee during gait. (8)
- 2 a) Discuss the anatomy and function of the 1st ray and peroneus longus in achieving midfoot stability. (8)
- b) Explain what is meant by the term “a medially deviated sub talar joint axis?” (4)
- c) Why does a medially deviated sub talar joint axis decrease the stability of the midfoot? (8)

END OF PAPER