

NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY

APPLIED PHYSICS DEPARTMENT

APPENDICULAR SKELETON – SRA 1204

EXAMINATION

BSc HONOURS PART I

AUGUST 2004

DURATION : 3 HOURS

ANSWER **ALL** QUESTIONS IN SECTION A AND ANY **THREE** QUESTIONS FROM SECTION B. SECTION A CARRIES 40 MARKS AND SECTION B CARRIES 60 MARKS.

SECTION A

1. (a) (i) What is a colle's fracture? [4]
(ii) Describe a lateral projection to demonstrate this fracture. [6]
- (b) Name and label the joint shown in Figure 1 below. [5]

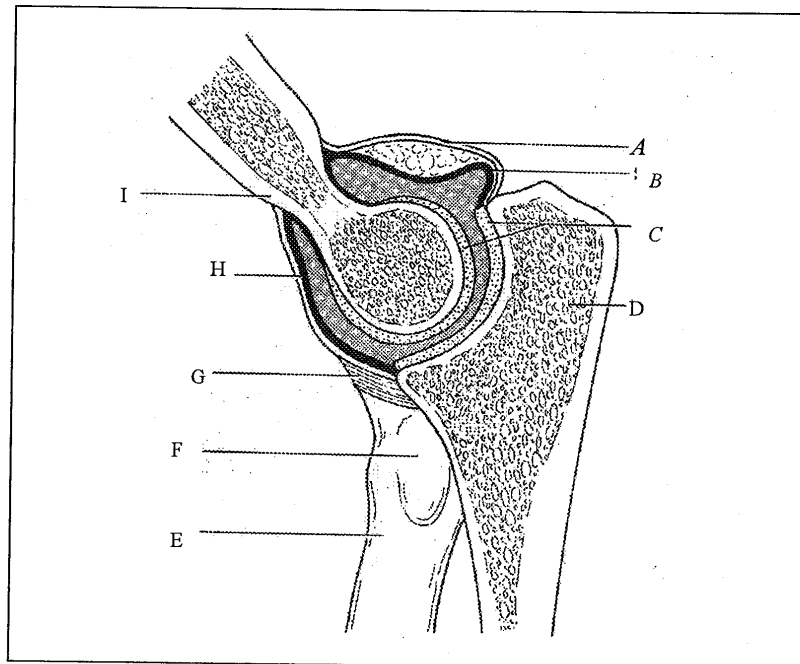


Figure 1

- (c) Explain the care of patient who is suspected to have a supra-condylar fracture. [5]
- (d) (i) Why is tungsten used for the filament of an x-ray tube. [5]
- (ii) Explain one radiographic projection to demonstrate a Pott's fracture. [5]
- (e) (i) Describe the upper end of the femur. [5]
- (ii) Explain the role of the imaging department in the management of neck of femur fractures. [5]

SECTION B

2. (a) Name and label the diagram shown in Figure 2 below [5]

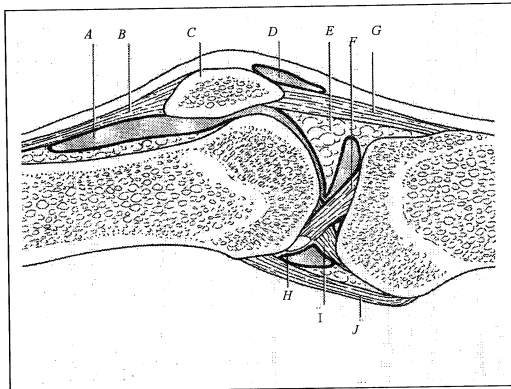


Figure 2

- (b) State methods of imaging the knee. [5]
- (c) Describe two basic radiographic projections to demonstrate knee injury. [10]
3. (a) What is the anode heel effect and state its application. [5]
- (b) Explain the radiographic appearances of the following:
- (i) Smith's fracture
 - (ii) Osteomyelitis
 - (iii) Rheumatoid arthritis in the hand
 - (iv) Gout on tarsal bones and phalanges
 - (v) Green stick fracture [15]
4. (a) State the muscles that cause movement at the shoulder joint. [8]
- (b) List the movements that occur at the shoulder. [4]
- (c) Describe an antero-posterior projection for the shoulder joint. [8]
5. State five of the seven ligaments that strengthen the hip joint and explain their attachments [20]
6. (a) What is pes planus. [2]
- (b) Describe a projection to demonstrate pes planus. [8]

(c) Name and label the diagram in Figure 3 below.

[10]

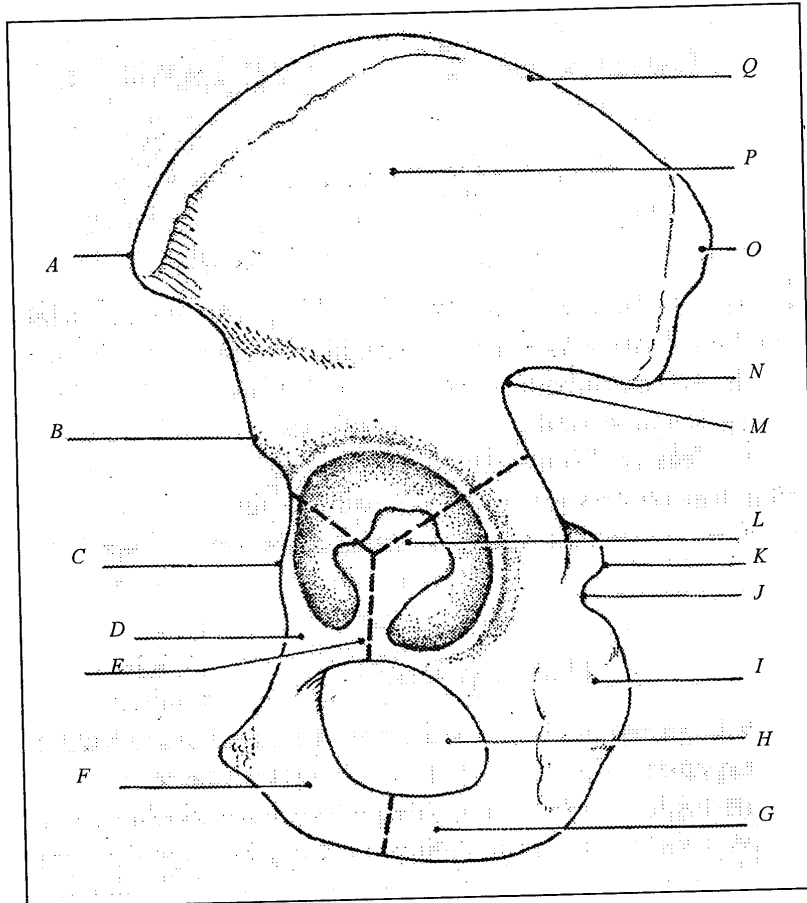


Figure 3.

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