NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY

APPLIED PHYSICS DEPARTMENT

THE AXIAL SKELETON - SRA 2104

EXAMINATION

BSc HONOURS PART II : DECEMBER 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.

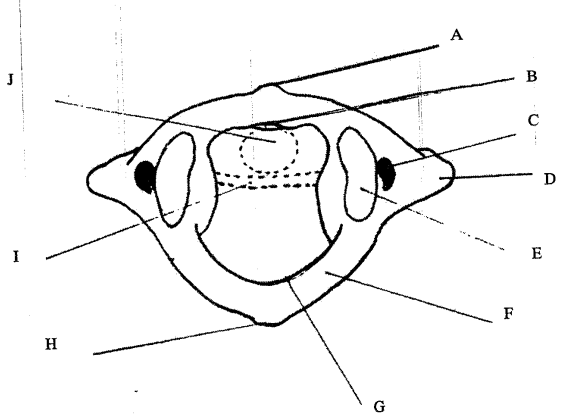
SECTION A

1. (a) Explain the value of plain skull radiography in demonstrating *two* selected pathologies. [5]

(b) Distinguish between the primary and secondary curves of the spine giving two examples. [5]

(c) What are the following pathologies?
(i) kyphosis,
(ii) scoliosis,
(iii) spondylolisthesis,
(iv) platybasia,
(v) sciatica. [10]

(d) Label the diagram below [5]



(e) Name *ten* facial bones [5]

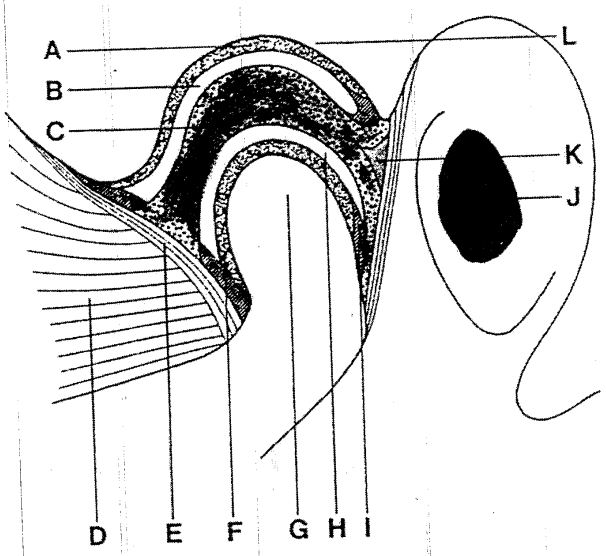
(f) Describe the position of the patient, cassette and x-ray beam for a lateral radiograph of the skull on an ambulant patient. [5]

(g) Explain why a lateral cervical spine is always performed using a horizontal beam. [5]

SECTION B

2. Describe the equipment and accessories that is suitable for general radiography to include the vertebral column. [20]

3. (a) Label the diagram below. [6]



(b) Describe *two* projections to demonstrate dislocation in such a joint. [14]

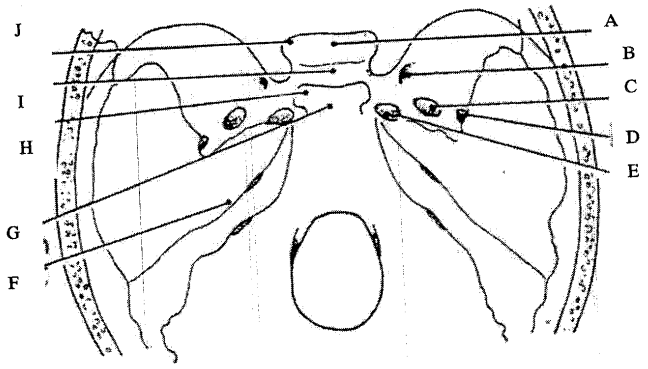
4. (a) What is sacralisation? [2]

(b) Explain the value of the lumbosacral junction collimated projection in radiography of the lumbar spine. [4]

(c) Describe the position of the patient and equipment in radiography of the lumbar spine. [12]

(d) Describe the radiological appearance of one condition of the lumbar spine. [2]

5. (a) Label the diagram below. [5]



(b) Describe the position of patient and equipment for two projections other than the lateral, to demonstrate the cranium. [12]

(c) State the criteria used in assessing the technical quality of a lateral skull radiograph. [3]

6. Compare and contrast special equipment used for skull radiography. [20]

END OF EXAMINATION