

NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY
APPLIED PHYSICS DEPARTMENT
CARDIOVASCULAR AND LYMPHATIC SYSTEM - SRA 2107

EXAMINATIONS

BSc HONOURS PART II: AUGUST 2004 DURATION: 3 HOURS

ANSWER ALL PARTS OF QUESTION 1 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) State five branches of the external carotid artery and areas they supply. (5)
- b) Explain the Seldinger technique (5)
- c) Compare and contrast conventional ionic contrast media with low osmolar contrast media (5)
- d) With reference to central venography what:-
 - i) is a valsalva manoeuvre (3)
 - ii) are the clinical indications (2)
- e) State the areas drained by the coeliac lymph nodes (5)
- f) Distinguish Hodgkin's from non – Hodgkin's lymphoma (5)
- g) State five methods of imaging the venous system (5)
- h) Explain the value of a plain chest radiograph in diagnosis of cardiac pathology. (5)

SECTION B

2. a) Describe a lymph node (10)
- b) State the function of lymph nodes (10)
3. a) State the lateral branches of the abdominal aorta (2)
- b) Explain the organs they supply (8)

- c) Explain inferior mesenteric arteriography (10)
4. Explain the following interventional procedures:-
- a) Baloon angioplasty (10)
- b) Vascular embolization (10)
5. Describe the equipment that is suitable for a room for angiography and angiocardiology (20)
6. a) State three controls of an automatic pressure injector (3)
- b) Describe the x-ray tube suitable for use in cardioangiography equipment (7)
- c) Describe lower limb venography (10)

END OF EXAMINATION