



NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY

FACULTY OF APPLIED SCIENCES

DEPARTMENT OF RADIOGRAPHY

BSc HONOURS IN RADIOGRAPHY PART III

INTERVENTIONAL PROCEDURES

SRA 3117

First Semester Examination Paper

December 2024

This examination paper consists of 4 pages

Time Allowed : 3 hours

Total Marks : 100

Special Requirements : None

Examiner's Name : Miss N Gertrude Makonese

INSTRUCTIONS

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.

MARK ALLOCATION

QUESTION	MARKS
1.	40
2.	20
3.	20
4.	20
5.	20
6.	20
Maximum possible mark	100

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SECTION A

1. Radiation Protection in an operating theatre or Angio Suite is important for the health and safety of health professionals and patients. Describe three (3) ways that may be used to reduce radiation exposure to the team of professionals working in this environment. [3]
- a) Explain why procedure rooms or theatres are controlled areas. [3]
- b) Write down in full what SIRT stand for and explain its reference in interventional radiography? [2]
- c) With the aid of two examples, explain the term biopsy. [2]
- d) Describe the procedure of how a pacemaker insertion is carried out including any relevant precautionary measures. [10]

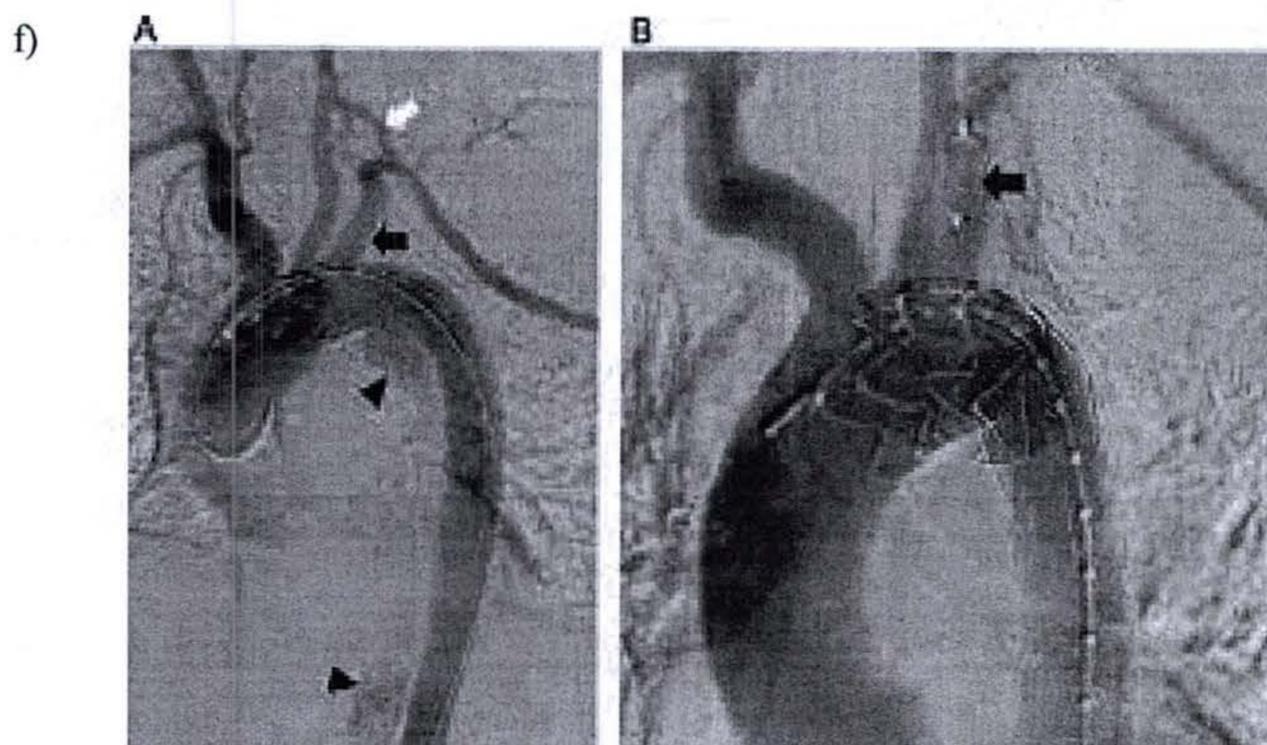


Figure 1

- With reference to Figure 1 images a and b;
- (i) Describe the interventional procedure that was carried out. [7]
 - (ii) Justify the reasons of carrying out the procedure. [3]
- g) Give nine (9) interventional procedures and state if they are **vascular** or non-**vascular**. [6]
 - h) Explain the term bone augmentation. [4]

SECTION B

2. a) Write the following abbreviations in full and briefly describe each procedure;
- i. ICD, [2]
 - ii. CABG, [2]
 - iii. PCI and [2]
 - iv. TEVAR [2]
- b) With reference to an Interventional procedure used in a patient diagnosed with excessive fluid in their brain;
- i. Name this condition and explain the role of the interventional procedure. [4]
 - ii. Describe this procedure including duration of recovery time recommended. [4]
 - iii. Explain the advantages of this procedure. [4]
3. During procedures involving contrast media, patients can suffer adverse reactions. Discuss the adverse reactions that can occur and the various ways that can be used to reduce them. [20]
4. Considering an Angioplasty procedure following ECG confirming that LMA or RMA is occluded;
- i. State the procedure and explain its preparation. [3]
 - ii. Outline the facts to consider prior to the procedure. [4]
 - iii. Explain the complications that can occur. [5]
 - iv. Discuss the precautions that can be taken to manage the patient's discomfort. [8]
5. Justify the use of an examination of choice in the diagnoses and demonstration of a blockage in the LMA and RMA as well as varicose veins disease patient. [20]

6. a) Recommend an interventional procedure that can be used to manage an abdominal aneurysm [10]
- b) i. What does the abbreviation PTCP stand for [1]
- ii. Discuss the patient preparation for this procedure including the rationale behind. [9]

END OF EXAMINATION